XXXIII All-India Medical Conference (Trivandrum)—Provisional Programme on Page 415

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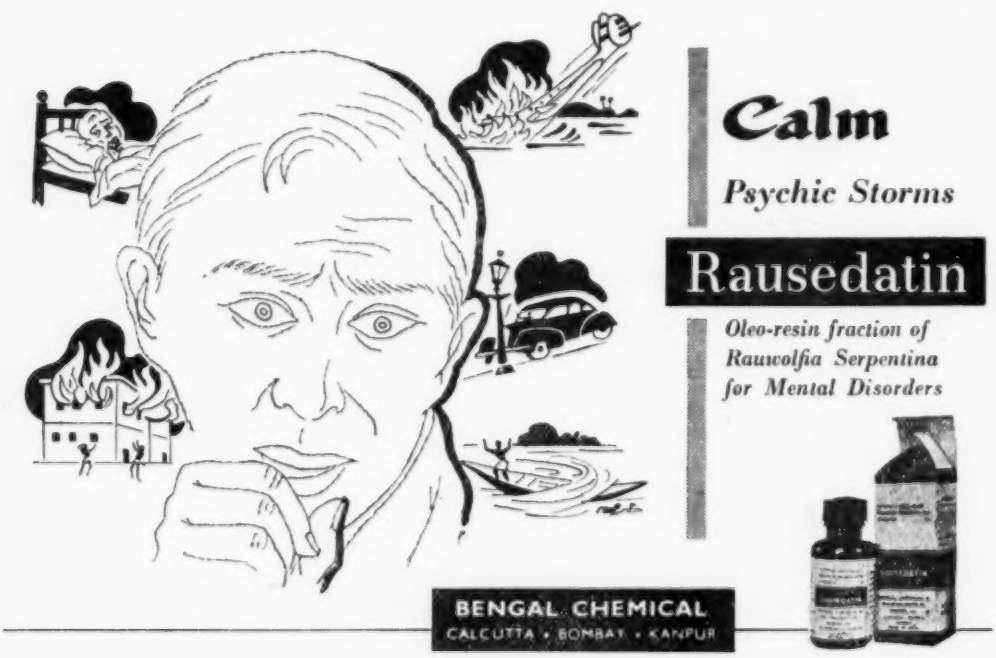

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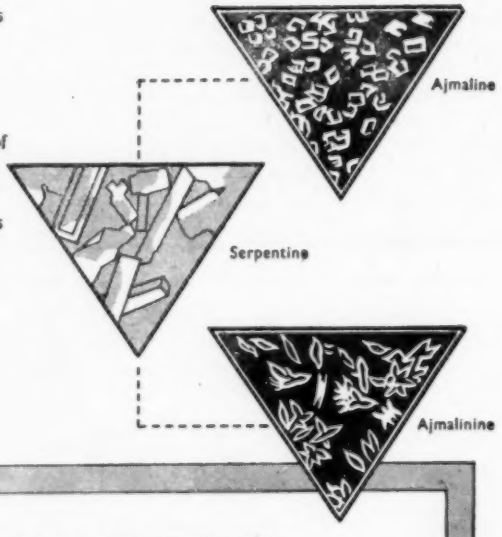

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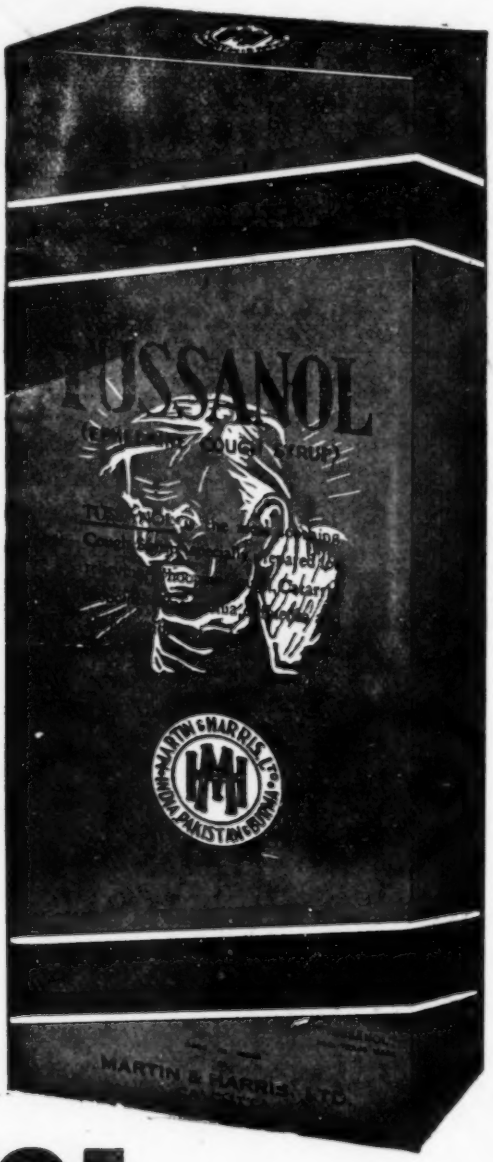

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*Stone, M. L., and Mersheimer, W. L.: "Comparison of side effects of tetracycline and tetracycline combined with nystatin." Antibiotics Annual 1955-56, New York, Medical Encyclopedia Inc., 1956, p. 862.

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Lee, A. F. and Keifer, W. S.:
Northwest Med. 53:1227 (Dec.) 1954.

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Welch, H.: Editorial,
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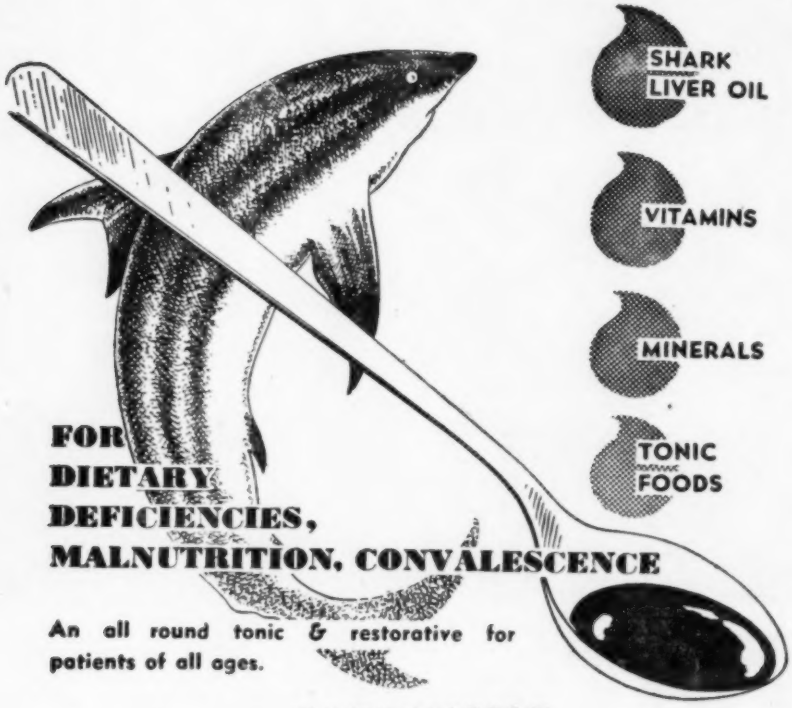

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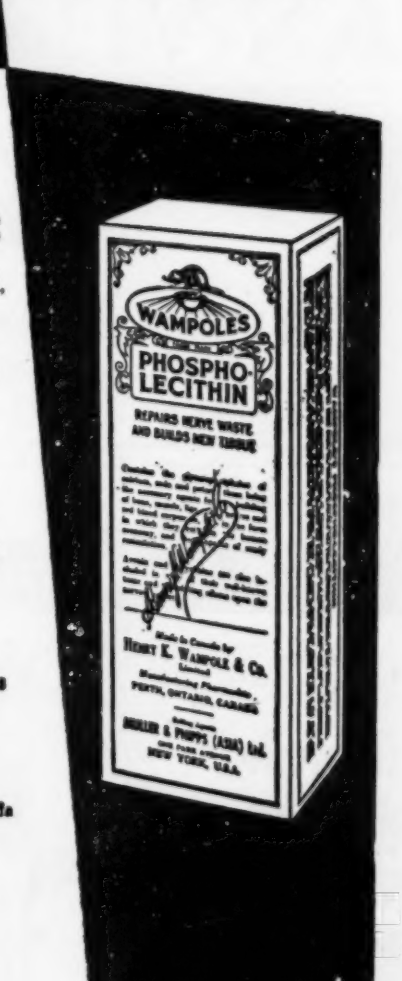

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Journal of the Indian Medical Association

VOL. 27, No. 11 — CALCUTTA, PUBLISHED TWICE A MONTH — DECEMBER 1, 1956

ORIGINAL ARTICLES

CONSTRICTIVE PERICARDITIS

S. C. CHATTERJEE, M.B., M.R.C.P.,

S. N. SEN GUPTA, M.B., M.R.C.P. (EDIN.),

S. N. CHATTERJEE, M.B. AND S. M. GHOSE, M.B., F.R.C.S.,

From the Departments of Medicine and Surgery, Chittaranjan Hospital, Calcutta National Medical College.

Chronic constrictive pericarditis is not a very common condition met with in clinical practice. But it is of great interest in view of the fact that its aetiology in most cases is still unknown and that its medical treatment is totally disappointing. The outlook of such cases has now improved considerably with modern surgery.

There is no doubt that constrictive pericarditis is a multi-aetiological syndrome. Tuberculosis is one of the causes as is shown by isolation of organisms from the lesion in occasional cases, by histological demonstration of giant cell system and tubercle formation, and by association of tuberculous lesion in the lungs and elsewhere in some patients. Even then in some such cases tuberculin test may be persistently negative (McKusick, 1952). Rheumatic valvular lesions have on few occasions been reported with constrictive pericarditis. But they are almost universally regarded as mere coincidence on clinical and pathological grounds (White, 1935 ; Harrison and White, 1942 ; Evans and Jackson, 1952). Trauma and purulent pericarditis are very rare causes (Blalock, 1940 ; Strauss, 1944 ; Sellors, 1945) and spontaneous haemorrhage in purpura was found to be followed by constrictive pericarditis (East and Bain, 1948). In majority of the cases, however, the aetiology is obscure.

The pathological lesion consists of great fibrous thickening of the pericardium with complete or almost complete obliteration of the sac so that the heart is encased in a thick fibrous shell, which may sometimes undergo calcification. The mouths of the venae cavae may be involved in the constrictive process ; but this probably does not play a significant part in the profound haemodynamic changes of constrictive pericarditis (Sellors, 1945 ; McKusick, 1952). The neck veins are greatly distended and there is a high rise of the venous pressure. Often the congestion of the portal system is more conspicuous for some unknown reason. The liver and sometime the spleen are enlarged but usually not very tender. Ascites is always present, but oedema of the dependent parts is not a prominent feature. The pulse is small, often paradoxical and the pulse pressure is always low.

We report here a case which presented as pericardial effusion, developed constriction and was successfully operated upon. Konar *et al* (1952) reported a tuberculous case similarly treated and recently Roy Choudhury (1956) has performed pericardectomy on another patient with good results.

CASE REPORT

A housewife aged 27, developed malaise and low pyrexia, five months prior to admission into this hospital on 26-10-53. Her temperature gradually increased, varying between 101° and 99°F. There was no other subjective symptoms except occasional vague precordial discomfort. One month later she began to feel shortness of breath on accustomed exertion. This was followed in a short time by gradual swelling of the

abdomen and slight oedema of the feet. Her periods had stopped four months prior to admission. The history of past illness and family history were non-contributory.

On admission, the patient was found thinly built with slight puffiness of the face. She was slightly dyspnoeic, but could lie flat without added discomfort. The neck veins were greatly distended even in upright position and not pulsatile. The veins of the upper limbs were also full. Her abdomen was distended with free fluid in the peritoneal cavity. The liver was palpable 1¼" below the costal margin and was firm and slightly tender. The spleen was just palpable. There was slight pitting oedema of the feet.

The cardiac apex was neither visible nor palpable. The trachea was in the midline. There was evidence of fluid in both pleural cavities. The extent of cardiac dullness could not be properly assessed as it merged with the dullness on either side of the chest. The heart sounds were audible and normal in character. There was no gallop or murmur.

The respiration rate was 28 per minute and pulse rate between 92 and 110 per minute, regular and small. There was no phasic variation in the volume with respiration. The blood pressure was between 90/60 and 100/80 mm. Hg. Temperature varied between 99° and 100·6°F. There was no other clinical abnormality.

Laboratory investigations—Blood: Hb.—12·2 g. per cent; R. B. C.—3·81 million per c.mm.; W. B. C.—6,700 per c.mm. with neutrophils 64 per cent, lymphocytes 27 per cent, monocytes 5 per cent, eosinophils 4 per cent; E.S.R. 56 mm. (one hour—Westergren).

Blood chemistry: Urea—18·0 mg. per cent; N.P.N.—25·2 mg. per cent; Protein—4·06 g. per cent (albumin 2·5 g. per cent).

Urine and faeces—normal; urine culture—sterile.

Pleural fluid—transparent, straw coloured; cells—30 per c.mm. (lymphocytes); protein—3·76 g. per cent; culture—sterile for acid-fast organism.

Peritoneal fluid—transparent, straw coloured; protein—4·06 g. per cent; no A.F.B. grown on culture.

Other investigations—Fluoroscopy—enlarged heart shadow without pulsation and bilateral pleural effusion—more on the right side.

E. C. G.—P inverted in lead V_1, notched in leads II and III and normal and upright in others; T flat in lead I and inverted in all other leads; PR and QT of normal duration (Fig. 1).

Radiographic findings are shown (Figs. 2, 3, 4, *vide* Plate) and other details given (Table I). Mantoux test was positive—1 :10,000. Venous pressure—30 cm. rising to 36 cm. of blood on pressure on the liver (30/36 cm.). Circulation time—arm-lung (ether)—18·5 sec., arm-tongue (saccharin)—26·5 sec.

Treatment—The patient was treated as a case of tuberculous pericarditis with absolute bed rest, streptomycin 1 g. intramuscularly and PAS 10 g. by mouth daily. Mercurial diuretics were used frequently.

Progress—There was no improvement with this treatment. On the contrary, the venous engorgement went on increasing and on 15-3-54, the venous pressure was 42/60 cm. of blood. The liver was now 4" and spleen about 1" below the costal margin, firm and fairly tender. The pleural fluid increased, particularly on the right side, necessitating withdrawal of good quantities on three occasions. The peritoneal fluid also increased and two paracenteses were done. Therapeutic aspiration of pericardial fluid was not considered necessary or useful. The blood pressure was maintained at the same level but the pulse rate was slightly increased (104-116 per minute). There was never any arrhythmia or paradoxical pulse. The temperature persisted unchanged and was very irregular. There was no appreciable change in the results of ancillary investigations.

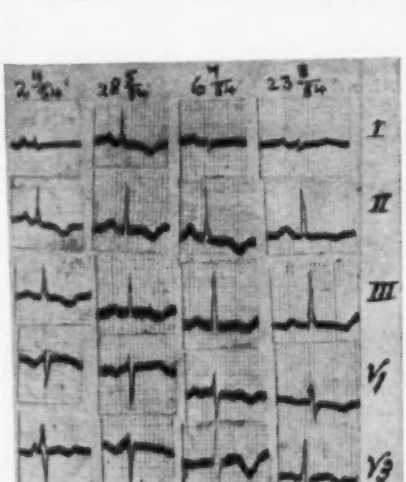

FIG. 1—SHOWING IMPROVEMENT IN E.C.G. PATTERN.

This trend of events during the five months' stay in the hospital strongly suggested constriction developing round the heart and it was evidently useless to persevere with the medical measures. Surgery was considered definitely indicated and it was undertaken on 3-4-54 under cover of streptomycin and PAS in the usual dose and penicillin 300,000 units every eight hours.

Preoperatively the right pleural space was aspirated, and the patient was prepared with secobarbital sodium, morphine and hyoscine. Operation was performed through the 4th left intercostal space.

Post-operative progress—The immediate postoperative period was uneventful and subsequent progress was remarkable. The dyspnoea completely disappeared soon after the immediate postoperative days and in a few weeks the patient could walk about without discomfort. The apical impulse could now be easily palpated in the 5th intercostal space on the midclavicular line and the heart sounds were more clearly audible. The oedema of the lower extremities rapidly subsided and the abdominal girth was steadily reduced. The

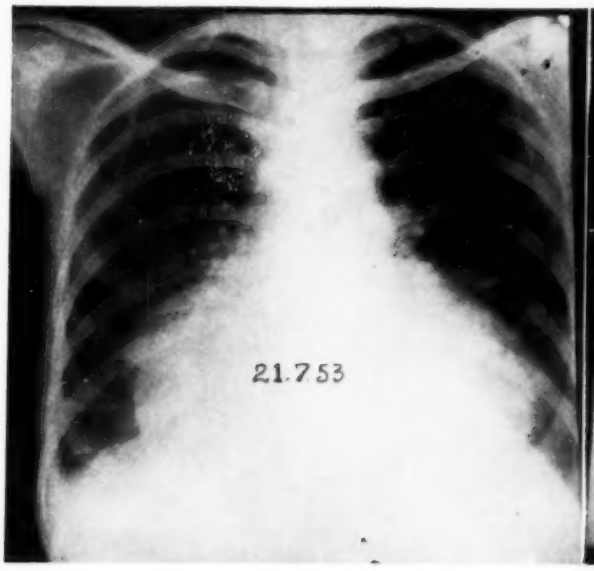

Fig. 2—Showing much enlarged heart shadow, and small amount of fluid in right pleural space.

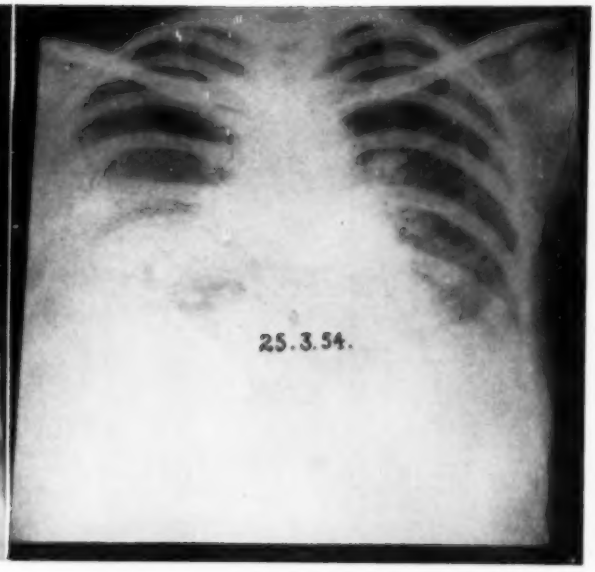

Fig. 3—Showing bilateral collection of pleural fluid. Preoperative.

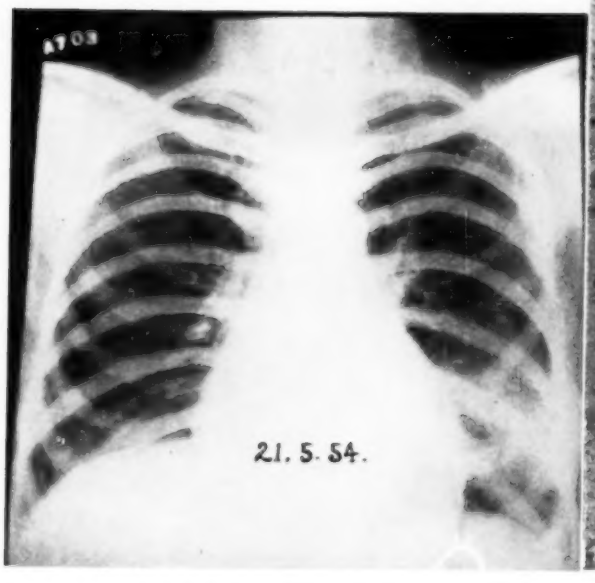

Fig. 4—Showing skiagraphic appearance seven weeks after operation.

Fig. 6—Section of resected pericardium showing loosely packed collagen fibres and one of the numerous areas of cellular infiltration. Note the vascularity of the tissue. (H. & E.)

Fig. 2—Skiagram right hemithorax (magnified) showing discrete nodules with intervening normal lung tissue.

Fig. 3—Skiagram chest showing dense opacities right upper zone and auriculoventricular enlargement.

BASU AND SANYAL. *Localised Pulmonary Haemosiderosis in a Case of Mitral Valve Disease (p. 396)*

Fig. 1

Fig. 2

Fig. 1

STEPHENS—*Kimmelstiel-Wilson's Syndrome with Hoffa's Disease (p. 398)*

MUKERJEE ET AL.—*Acute Haemolytic Anaemia following Sulphadiazine Therapy (p. 399)*

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TABLE I

Date	21-7-53	14-8-53	25-8-53	17-11-53	8-1-54	25-3-54	4-4-54	5-4-54	21-5-54	14-7-54
Heart shadow	Much enlarged. Cardio-thoracic ratio—73·5 (approx.) (Fig. 2, *vide* Plate).	Smaller. Cardio-thoracic ratio—65 (approx.).	Appears same. Lower part obscured by pleural shadow.	Appears smaller. Partly obscured in the lower part.	Difficult to comment. More obscured by pleural shadow.	Obscured beyond assessment. (Fig. 3, *vide* Plate).	Postoperative.		Appears slightly bigger than normal. Cardio-thoracic ratio—50 (approx.). (Fig. 4, *vide* Plate).	Same. Cardio-thoracic ratio—50 (approx.).
Lung parenchyma	Normal	Normal	Normal	Normal	Normal	Normal	—		Normal	Normal
Pleura	Right costophrenic sulcus dull.	Normal. Right costophrenic sulcus sharply defined.	Right—effusion upto 5th rib. Left—costophrenic sulcus obliterated.	Right—effusion upto 5th rib. Thick line of pleura extending upwards. Left—fluid upto 5th space.	Right—fluid shadow upto 3rd interspace. Transverse septum very prominent. Left—fluid shadow upto 5th rib.	Right—fluid upto 3rd rib. Thick pleural line extending to top. Left—fluid upto 5th rib.	—		Right—costophrenic sulcus sharp and clear. Slightly thick pleural line at the lower part. Left—costophrenic sulcus dull.	Right—costophrenic sulcus clear and sharp. No pleural line seen. Left—costophrenic sulcus dull.
Remarks	Small amount of fluid in right pleural space.	Pleural fluid radiologically absorbed.	Accumulation of fluid in both pleural spaces.	Greater pleural involvement.	Still greater pleural involvement.	Pleural fluid greatly increased on the right.	—		Opacity in left 5th and 6th spaces due to operative scar.	Opacity in left 5th and 6th spaces less dense.

Findings of PA chest radiographs arranged in order. The comparative terms are used in relation to preceding radiograph. Post-operative radiographs not commented on.

pleural fluid also absorbed gradually. There was appreciable reduction in the size of the liver within a week and 8 weeks after operation its margin was only ½" below the costal margin, while the spleen could be just palpated with difficulty in deep inspiration. The pulse was regular with a rate of 80—90 per minute and subsequently, when the patient was afebrile, 4 weeks after the operation, it was maintained at 72—76 per minute (Fig. 5). There was, however, no appreciable change in the B. P. and before discharge, four months later, it was 108/76 mm. Hg. (Fig. 5). The

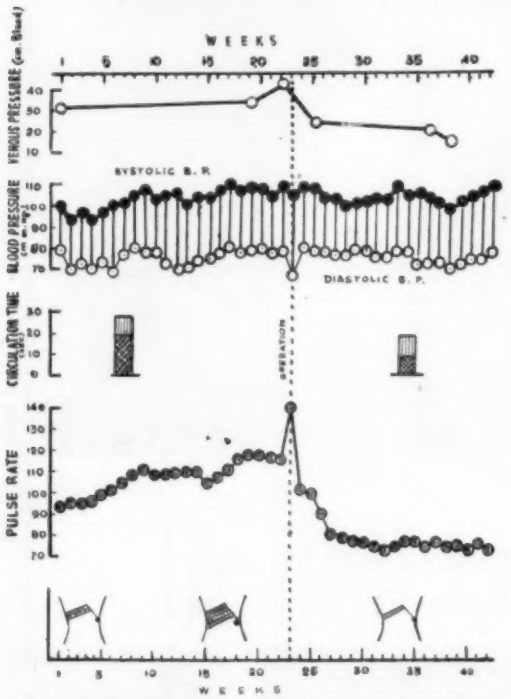

FIG. 5—DIAGRAMMATIC REPRESENTATION OF PRE-OPERATIVE AND POST-OPERATIVE FINDINGS.

reduction of venous engorgement and venous pressure was gradual. 14 weeks after the operation the jugular veins were slightly distended at the root and the V. P. was still 15/17 c. mm. (Fig. 5). The ether and saccharin circulation times were 8 and 18·5 sec. respectively (normal) after 12 weeks.

Commensurate with the improvement in the circulatory state the blood protein rose to 8·58 g. per cent (albumin 4·44 g. per cent), and E.S.R. fell to 30 mm. (one hour—Westergren). Fluoroscopically the heart was found vigorously pulsatile soon after the operation. The radiological changes are shown in Table 1. There was also considerable improvement in E. C. G. patterns (Fig. 1).

The general condition of the patient improved beyond recognition. She gained about a stone in weight after the initial loss with disappearance of retained fluid. Her menstrual flow started 6 weeks after the operation for the first time in 11 months.

The patient was discharged from the hospital on 4-8-54 (exactly 4 months after operation) and has been followed up at intervals ever since. There has been no fresh troubles. The blood pressure has been recorded on each visit and has been found varying between 100—110 mm. Hg systolic and 72—80 mm. Hg diastolic. It is gratifying to note that she is now the mother of a child born normally.

Histology of the resected pericardium.—Examination of a selected portion of the pericardial tissue removed at operation showed thick collagen tissue. The fibres were not very compact and their outline was wavy. There was some hyalinisation of the fibres at places. Scattered in the collagen mass were areas of infiltration with lymphocytes and plasma cells. There was no epithelial cell or giant cell system. Fair number of capillaries were present and plenty of red cells was found between the fibres in several areas (Fig. 6, *vide* Plate). The latter was presumably due to extravasation as a result of operative trauma. The material obtained from the pericardial tissue did not grow tubercle bacilli on culture.

DISCUSSION

Apart from the fact that our patient adds to the list of those who have been saved by surgical intervention, she presented certain interesting features which require examination.

Our patient gave us a unique opportunity to study how rapidly pericardial effusion can pass into constrictive stage. Although we did not put in a diagnostic needle in the pericardial sac and although radiological enlargement of the cardiac shadow is compatible with constrictive pericarditis, the nature of onset and the clinical and radiological progress leave very little doubt that the initial condition was pericardial effusion. In a few months' time the heart shadow was reduced in size inspite of progressive increase in the congestion of the systemic and portal venous systems. It is, however, difficult to say when the fluid constriction was replaced by fibrous constriction as the whole process was imperceptibly continuous. In one case of Hunter and East (1939) the time interval between acute infection and development of constriction was about 12 months. In our case it was definitely much shorter.

The circulation time in this patient showed a marked delay in blood flow through the right heart, the flow through the left being normal. It was restored to normal pattern soon after surgical decompression. Similar changes in blood flow was observed by Stewart *et al* (quoted by East and Bain, 1948). Sellors (1945) and McKusick (1952) from their studies were satisfied that no significant delay occurs at the venacaval orifices which may be extremely narrowed by the constricting process.

It is universally agreed that the change in haemodynamics is due to inability of the ventricles to receive and hence deliver the normal load of blood because the fibrous (and often calcified) shell reduces the diastolic capacity of the ventricular cavities. This, however, does not explain the selective delay of blood flow in the right heart.

Contrary to expectation, there was no significant rise in the pulse pressure after operation and during the period of follow up, although there was progressive fall in the venous pressure during the four months' stay in the hospital after operation. It is generally recognised that the improvement in pulse pressure occurs almost immediately after decompression while the venous pressure is very slow to fall and takes a long time to be restored to normal. We, however, do not know the patient's normal B. P. before the illness and whether there was any appreciable change in it due to the disease. But considering the clinical features and the improvement that followed operation it would be very surprising indeed if the haemodynamic changes occurred without affecting the blood pressure.

The E.C.G. pattern improved considerably but was still abnormal 19 months after operation. The notching of P still persisted in leads II and III but it was upright in V_1. T was now upright in leads I and V_6 and less deeply inverted in others (Fig. 1).

The aetiology of our case remains undetermined. There is no histological or bacteriological evidence of tuberculosis. The positive Mantoux test at the age of 27 is equivocal. Although aspiration of pericardial fluid was not done, the history and clinical features do not suggest pyogenic infection of the pericardium. Trauma as a cause is ruled out by negative history.

The histological picture of the resected pericardial tissue was interesting. Armstrong (1940) studied the characteristic lesion of pericardial adhesion with and without constriction. He observed that in all cases with constriction the collagen fibres were thick, compact and hyalinised and the tissue was totally or almost totally acellular and avascular. In the non-constrictive group, the fibres were nonhyalinised, loosely packed and thrown in waves, and vascularity and cellularity were conspicuous. His findings were corroborated by Sellors (1945). In our case the fibres were thick, loosely packed and partly hyalinised. Plenty of blood vessels and many areas of non-specific cellular infiltration were present. We do not know if this picture represents a transitional stage towards the more mature collagen tissue described by Armstrong. But we may conclude that cardiac compression can occur even with the less compact and vascular connective tissue found in our case.

Summary and Conclusion

A case of pericardial effusion gradually passing into constrictive pericarditis in a few months' time is described with a short note on the syndrome. The patient was successfully treated by pericardectomy and followed up for more than one year. The immediate postoperative result and subsequent progress were remarkable.

The haemodynamic study was interesting. There was delay in blood flow through the right heart and the venous pressure was greatly raised. The blood flow was restored to normal and the venous pressure was much reduced during the four months' stay in the hospital after operation. Contrary to expectation, the pulse pressure did not rise appreciably during the long follow up period.

The histological picture of the resected pericardium was unlike that described by various authors.

It is concluded that pericarditis with effusion can pass imperceptibly into constrictive pericarditis within a few months and that contrary to usual belief, cardiac compression can occur even with less compact, fairly vascular and cellular collagen tissue.

Acknowledgment

We are grateful to Dr. M. N. Sarkar, Superintendent, Chittaranjan Hospital, for allowing us to publish this case. We thank Dr. S. Chatterjee for his able assistance with anaesthesia and in the postoperative management of the patient. Our thanks also go to Prof. A. C. Guha and Dr. Shyamal Sen for their histopathological studies and microphotography, to Dr. H. K. Bose for the E. C. G. and haemodynamic studies, to Drs. P. Das, D. De Sarkar and J. C. Ghose, and to the house officers whose constant assistance went a long way towards the achievement of the happy results.

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CLINICAL OBSERVATIONS ON THE ANTIDIABETIC PROPERTIES OF *PTEROCARPUS MARSUPIUM* AND *EUGENIA JAMBOLANA*

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INTRODUCTION

Diabetes mellitus has been known since the dawn of civilisation but its treatment with insulin has started only since 1925. The insulin therapy has certainly reduced the mortality and morbidity and the difficulties of frequent injections have partly been solved by the advent of retard insulins but a medicine for oral administration will, no doubt, find a cordial welcome from diabetic patients†. Since long before the insulin period indigenous drugs have been in use for the treatment of this malady. Collip (1923) reported the presence of glucokinin, an active principle, in some plant extracts which were found to possess hypoglycaemic action. This finding, however, was not confirmed by others. Hypoglycaemic effects of 'Devils Club' (*Fastia horida*), a plant from British Columbia, *Momordica charantia* from Puerto Rico and *Scoperia dulsis* have been reported by a number of workers (Large and Broocklesby, 1938 ; Rivera, 1942 ; Nath *et al*, 1949). The antidiabetic effect of jamoon seeds (*Eugenia jambolana*) and Gular (*Ficus glomerata*) is mentioned in Ayurvedic literature but no authentic data is available regarding their efficacy. Gurmar (*Gymnema sylvestre*) has largely been used in this disease. Its active principle gymnemic acid (Chopra *et al*, 1928) was not found to possess any hypoglycaemic action while Mhaskar and Caius (1930) as well as Trivedi (1955) reported definitely hypoglycaemic effect of this drug. Kundru (*Coccinia indica*) has been a popular remedy for diabetes in Bengal but there have been conflicting reports about its efficacy, though recently De and Mukherji (1953) showed some hypoglycaemic effect in rabbits and significant general improvement in diabetic patients. The wood of Bijasar (*Pterocarpus marsupium*), reported to possess antidiabetic effects, has been investigated chemically and pharmacologically on experimental animals by Bose *et al* (1955), and Ojha *et al* (1949). The aqueous extract of the wood is reported to cause a marked fall in blood-sugar level in experimental diabetes in rabbits. The clinical reports on the antidiabetic effect of these drugs are, however, inadequate for recommending their use in general practice. Therefore, it was thought desirable to evaluate these indigenous and cheap remedies on selected cases of diabetes. We have limited our study to only two drugs, viz., *Pterocarpus marsupium* (bijasar) and *Eugenia jambolana* seeds (jamoon), as these have undergone some preliminary investigations. *Basant Kusumakar Rasa* (an Ayurvedic recipe) was used in some cases as an adjuvant.

† Recently oral antidiabetics like BZ 55 are being used with success—Ed., *J. Indian M. A.*

PREPARATIONS AND PROCESSING OF DRUGS

PTEROCARPUS MARSUPIUM :

The material used consisted of central hard wood, dried and crushed into coarse powder.

(A) *Aqueous extract*—Two preparations were made—(i) 24 hours' infusion in the strength of 1 :8 which was prepared daily and consumed. (ii) 7 days' infusion in the same strength. This was preserved with a small quantity of chloroform (2 c.c. per lb.) to avoid fermentation. After 7 days it was strained and kept in a well stoppered bottle.

(B) *Alcoholic extract*—With the same coarse powder this extract was prepared with the addition of 95 per cent alcohol in a percolator in the strength of 1 :6.

EUGENIA JAMBOLANA :

Dried seeds of *Eugenia jambolana*, devoid of the pericarp, were crushed into fine powder (No. 80 sieve was used) and used as such.

BASANT KUSUMAKAR RASA :

This is a well-known Ayurvedic recipe containing several heavy metals, musk and herbal ingredients according to the formula given in Bhaishajya Ratnavali (*Rasayandhikar*), an Ayurvedic pharmacopoeia. This medicine is used always along with some adjuvant, generally herbal ingredients, as *Anupan* and as such it was used either with the fresh juice of Gular (*Ficus glomerata*) or Kundru leaves (*Coccinia indica*). All these preparations were used orally.

SELECTION OF PATIENTS

Diabetic patients, admitted to the medical wards, were taken up for the study. They were chiefly from the class who could not afford insulin.

TABLE 1—SHOWING THE EFFECT OF *Pterocarpus marsupium* ON BLOOD AND URINE SUGAR IN DIABETIC PATIENTS

Case No.	Wt. in lb. Initial/Final	B.S./U.S. mg. per cent						
		Initial	At the end of different periods of treatment					
			10th day	20th day	30th day	40th day	50th day	60th day
1	—/72	160/3·45	170/1·0	220*/0·5	—	—	—	—
2	86/84	250/2·0	235/0·7	220/1·2	260/2·7	—	—	—
3	46/46	338/4·0	332/7·7	—	—	—	—	—
4	126/128	250/3·0	300/3·3	310*/3·7	290*/5·3	—	295*/5·5	—
5	94/88	265/7·1	265/6·6	275/5·0	292*/3·2	270*/2·8	328*/5·0	—
6	77/82	275/4·3	278/4·0	-/6·0	—	—	—	—
7	140/134	296/6·25	285/4·3	260/2·6	250/3·3	—	—	—
8	84/81	360/5·5	320/7·7	315/6·7	—	—	—	—
9	74/—	360/3·3	—/5·0	—	—	—	—	—
10	84/—	332/10·0	304/8·0	—	—	—	—	—
11	56/61	290/7·0	340/9·0	232*/3·1	—*/0·75	266*/3·5 No drug	—*	240/1·8
12	77/88	290/5·9	230/0·8	170/0·4	170/0·1	220/0·25	210*/0·15	320*/1·3
13	116/118	262/4·2	230/4·0	250*/4·3	—	—	—	—
14	84/88	252/4·0	254/3·2	230/2·1	270/1·7	—	—	—

B.S.—Blood Sugar, U.S.—Urine Sugar. * denote simultaneous use of *Basant Kusumakar Rasa.*

TABLE 2—SHOWING THE EFFECT OF *Eugenia jambolana* SEEDS ON BLOOD AND URINE SUGAR IN DIABETIC PATIENTS

Case No.	Wt. in lb. Initial/Final	B.S./U.S. (mg. per cent)							
		Initial	At the end of different periods of treatment						
			10th day	20th day	30th day	40th day	50th day	60th day	70th day
1 (Case 14, Table 1)	88/90	270/1·7	150/0·3	—/3·0	194/0·56	246/0·7	206/0·5	—/0·18	190/0·9
2 (Case 11, Table 1)	60/66	330/6·6	340*/9·0	(drug stopped)	—	—	—	—	—
	Re-started. 60/61	245/3·0	220/1·8	(drug stopped)	—	—	—	—	—
	Re-started. 61/64	270/4·6	248/6·6	(drug stopped)	—	—	—	—	—
3	74/70	260/11·0	266/7·7	360/7·2	266*/8·0	—	—	—	—
4 (Case 7, Table 1)	134/140	250/3·53	274/6·25	220/3·3	—	180/1·6	167/0·7	118/Nil	100/Nil
5	195/196	158/nil	170/0·1	—	137/Nil	—	—	—	144/Nil
6 (Case 5, Table 1)	88/90	328/5·6	302/4·3	—	—	—	—	—	—
7 (Case 8, Table 1)	81/78	315/6·7	320/9·0	278/8·5	302/9·0	—	—	—	—

B.S.—Blood Sugar, U.S.—Urine Sugar. * denote simultaneous use of *Basant Kusumakar Rasa.*

Care was taken to see that the patients did not have any complication which might have an aggravating effect on the diabetes.

The patients were put on a diet at 30-35 calorie per kg. of ideal body-weight. Usually a diet having about 1800 calories was given and the patients were put under observation for a period of 3 to 5 days during which period a complete clinical examination was made with the estimation of the amount of total urine excreted in 24 hours, and the quantity of sugar in the urine and the blood.

Drug and Dosage

Generally the first drug started was *Pterocarpus marsupium*. It was given initially in 1 oz. t.d.s. dose ; either the 24 hours' or the 7 days' infusion was given. Subsequently the doses were increased upto 2 oz. 4 times a day guided by the patient's response and reaction.

In a few cases the alcoholic extract was used, one dram t.d.s. Later, if the response with *Pterocarpus marsupium* was poor or nil, *Basant Kusumakar Rasa* was added in dosage of gr. 4 b.d. Check up of daily urinary output, urine-sugar twice a week and blood-sugar once a week was carried out.

In a few cases, where the patients could stay longer and *Pterocarpus marsupium* did not show any response, *Eugenia jambolana* was tried mainly in doses of 1 dr. t.d.s. and similar investigations were carried out.

Observations

The total number of cases treated in this series was 21, 19 being males and 2 females. The age incidence varied between 20 and 60 years.

Pterocarpus marsupium was tried in 17 cases. As three cases could be studied for less than 7 days only, they are not reported here. There was no change in blood or urinary sugar in these three cases. The results of observations on the other cases are given in Table 1.

It will be seen that out of 14 cases, there was no significant effect of the drug in 13. 4 cases (2, 3, 4 and 13) were having insulin prior to the start of *Pterocarpus marsupium*. Insulin was stopped for 5 days and then *Pterocarpus marsupium* was started. It was noted that in all these cases the sugar in urine and blood went up. There was significant effect of the drug on only 1 case in the series e.g. Case 12. In Cases 1, 11 and 14 although the reduction in urinary sugar was marked, the blood level showed only slight reduction. All these cases showed some increase in their weight.

In 6 cases (1, 4, 5, 11, 12 and 13) *Basant Kusumakar Rasa* in the dose of gr. 4 b.d. was tried in addition to the drug, but it did not show any effect, instead in 3 cases (1, 5 and 13) the blood-sugar level went up.

Eugenia jambolana seed was tried in 7 cases ; some of them were the same in whom *Pterocarpus marsupium* had been previously tried. The cases are presented in Table 2. It will be noticed that three cases (1, 4 and 5) showed a definite fall in urinary and blood sugar. Case 5 had 226 mg. per cent initial blood sugar and 7 per cent urinary sugar and was already having jamoon seeds with *Gymnema sylvestre* (Gurmar), another indigenous drug, before he was included in this study. His medicine was stopped for ten days and then the jamoon seed alone was started. His blood and urinary sugar, which had already come down, continued to remain low after omission of *Gymnema sylvestre* and finally became normal and his urine remained sugar-free for about a year after the stoppage of the drug. Case 4, whose blood-sugar came to normal level and urine became sugar-free, has maintained that state till now for two months. It was noted that in those successful cases (1 and 4) where both *Pterocarpus marsupium* and *Eugenia jambolana* seeds were tried one after another, the effect of *Eugenia jambolana* seeds was more prominent than that of *Pterocarpus marsupium*.

Discussion

Diabetes is a disease whose aetiology is not well-understood. There are various factors which influence sugar metabolism. It is a known fact that even in established diabetics, periodic variation in sugar level occurs. Diet is an important factor in diabetes. There always are, and in this series there were a few cases in which dietetic indiscretion could be suspected. Keeping these fallacies in mind it is found that these two drugs, *Pterocarpus marsupium* and *Eugenia jambolana* had some antidiabetic effect as will be evident from the tables. From the small series, although it is difficult to speak in terms of percentage, it can be pointed out that about 7 per cent of cases with *Pterocarpus marsupium* and 42 per cent with *Eugenia jambolana* showed definite improvement in diabetes and this improvement was maintained in these cases. There was a fall of urinary sugar in all cases that improved with a corresponding fall in the blood sugar. Most of the cases which improved were thin diabetics who later gained in weight.

The mode of action of the drugs is not known. But judging from the effect of *Pterocarpus mar-*

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supium in 3 cases (1, 11 and 14) where urinary sugar came down and the blood sugar either went up or remained stationery, it is possible that *Pterocarpus marsupium* might have some effect on urinary tubules of the nature of raising the threshold for sugar excretion.

In two cases there was albuminuria, which disappeared after stoppage of *Pterocarpus marsupium* and one developed acetonuria. Increase in the amount of sugar in four cases has already been mentioned.

Eugenia jambolana has certainly shown more cases recovering and the improvement was maintained in one case a year after its discontinuation. He was a fat diabetic and did not lose any weight.

Summary

21 cases of diabetes treated with two indigenous drugs are reported, 14 with *Pterocarpus marsupium*, and 7 cases with *Eugenia jambolana* seeds. In 6 cases *Basant Kusumakar Rasa* was used for some time simultaneously with these drugs without any appreciable antidiabetic effect.

Though the series is small, *Pterocarpus marsupium* appeared to be effective in 7 per cent of cases. There was no untoward effect or reaction except in 2 cases who developed albuminuria.

Eugenia jambolana seed seems to have definitely more antidiabetic property than *Pterocarpus marsupium*, which will be evident from its effect on 42 per cent of the cases in whom it was tried.

The mode of action of the drugs is not known. It is suggested that the action of *Pterocarpus marsupium* might be due to raising of the renal threshold for sugar.

Acknowledgment

We are thankful to Dr. S. K. Mukherji, Professor of Medicine, for his constant guidance and advice in conducting these investigations.

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EXPERIENCE WITH AN ORAL ANTIDIABETIC DRUG

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One of the properties of sulpha drugs is to induce hypoglycaemia. Similar activity among the derivatives of the compound have also been shown. The tertiary butyl and isobutyl derivatives were found to be particularly active in reducing blood-sugar levels while the amyl, propyl and isopropyl compounds were less effective. Subsequently the new sulpha compound BZ 55 was prepared and studied extensively with reference to the property of reducing the blood sugar. This study proved fascinating and at the same time useful and is likely to open new concepts of the disease—diabetes mellitus.

Chemistry and Pharmacology

Chemically it is N_1-sulphanilyl-N_3-n-butyl urea, a yellowish white crystalline substance, sparingly soluble in alcohol, dilute acids, and alkalies. It does not irritate the mucous membrane of the mouth or stomach and is rapidly absorbed when given by mouth and reaches appreciable concentration in the blood in 30 minutes, attaining a maximum blood level after 3 hours upto a period of 6-7 hours. The drug is found in the urine in about 7 or 8 hours and the acetylated form predominates in the urine. A definite lowering of the blood-sugar is noted as early as 3 hours after administration of the drug and this lasts upto ten hours in normal as well as diabetic individuals (Franke and Fuchs, 1956).

Clinical Reports

We have had the opportunity of using the drug in some selected cases of diabetes mellitus and have noted encouraging results. A few preliminary observations and reports are given.

A total number of 40 cases have so far been treated with the drug. For a preliminary study we were particular to choose diabetics of any duration, over the age of 30 years, obese and overweight individuals, and without any evidence of severe ketosis or infection. However, we have included a few diabetics with surgical complications, a juvenile diabetic, a diabetic with high renal threshold and a case of renal glycosuria. Among the total cases selected, 10 were previously treated with insulin and diet, 26 were completely untreated before (fresh cases), and there were 2 cases with slight ketosis and 2 with surgical complications. Of these cases, 36 were treated as in-patients in the wards for a period of at least 10 days and were later followed up as out-patients. The rest were treated mainly as out-patients with a regular follow-up. All the patients were given the maximum caloric diabetic diet (vegetarian 2000 calories, non-vegetarian 1900 calories) according to the General Hospital diet regime. A glucose-tolerance test was done in every case and the severity of diabetic condition was assessed prior to treatment. An average blood-sugar level of at least over 200 mg. per cent was present in all these cases.

Dosage, Mode of Administration and Duration of Treatment

In almost all the cases, irrespective of the severity of the disease or the level of the blood-sugar, the same schedule of dosage was used as a routine, viz., 5 tablets (0·5 g. each tablet) on the first day, 3 tablets on two subsequent days and later 2 tablets daily as the maintenance dose. In a few instances the maintenance dose was lowered to one tablet daily or increased to 3 tablets daily depending upon the blood-sugar level. The tablets were given in divided doses in the morning, noon and evening so as to avoid any possible undesirable effect of the drug. Blood-sugar estimations were done daily in all the cases for the first 3 or 4 days and subsequently on alternate days and later every 3 or 4 days. In a few instances, the blood sugar estimations were done more than once in the course of a day, but the too frequent blood-sugar estimations were not found to be of any great value in the clinical assessment of the drug. Simultaneous urine sugar was also noted in every instance along with the random blood-sugar, apart from the daily urine-sugar reports. A total and differential white blood cell count was done in all cases prior to and during the course of treatment. A few other relevant investigations like liver function and kidney function tests and other blood estimations were also carried out in cases associated with other complicating diseases and also to evaluate any toxic effects of the drug. So far, we have not assessed the duration necessary for treatment and our patients still continue to take the maintenance dose and it is nearly over 3 months since we started the clinical trials. We hope to stop the treatment in a few selected cases and watch the progress of such patients in future so as to enable us to understand and evaluate the claims of the drug that it could be given up after a certain period of treatment in a few instances. No blood level estimations of the drug was done owing to lack of facilities. In previous insulin treated cases, an interval of at least 3 days without insulin injections was allowed prior to starting of the therapy. In a few instances, this drug was supplemented with small doses of insulin to achieve clinical results, where the drug alone was deemed to be insufficient.

Therapeutic Effects and Clinical Illustrations

In most of the cases (60 per cent of the present series) a steep fall in the blood-sugar (by about 100 mg. per cent) and simultaneous reduction of urine-sugar were noted within 24 hours followed by a slight significant rise and then a steady fall near to normal level was reached in 3 or 4 days' time and thereafter it continued to be so on the maintenance dose. In a few other instances, it took nearly 7-10 days' time to appreciate a significant fall in blood-sugar and another 4 or 5 days to return to and maintain normal level. In a minority of cases (a total of 4 cases in the present series) including a severe case of juvenile diabetes, no significant reduction of blood-sugar level was noted even after a period of one month and hence the therapy had to be discontinued and insulin was started in these cases. In 3 cases the therapy was supplemented with a small dose of insulin owing to the associated surgical conditions and the response was very good. The dosage of insulin requirement in these cases was markedly less (¼th to 1/5th of the previous insulin requirements) than prior to the new drug therapy. Subsequently, in one of the cases the insulin could be given up totally without any bad effects. A singular case of absolute renal glycosuria treated with this compound responded very well and urine-sugar completely disappeared on the first day of institution of this treatment and no evidence of hypoglycaemic reactions were observed in this case and the

patient continued to be sugar-free in the urine with a maintenance dose of 0·5 g. a day and blood-sugar levels maintained around 90 mg. per cent. This case of renal glycosuria was tried only out of our own clinical interest.

A few illustrative cases from our series are presented.

Illustrative Cases

Case 1—An elderly obese male, 50 years, with blood pressure of 220/120 mm. Hg. and diabetic retinopathy without any previous treatment with insulin was subjected to this therapy in the usual dosage schedule. The glucose tolerance test showed a moderate diabetic curve with 256 mg. per cent maximum blood-sugar. Within 24 hours the blood-sugar came down to 141 mg. per cent and in 48 hours to 90 mg. per cent and with continued therapy the level was maintained between 90 and 100 mg. per cent and the urine was absolutely free from sugar. No hypoglycaemic reactions were observed. The diabetic retinopathy, however, did not show any significant improvement.

Case 2—Male, 49 years, weighing 136 lb., with a healing tuberculous focus in the lung had a high diabetic glucose tolerance curve with 400 mg. per cent maximum blood-sugar. After the start of the regime, blood-sugar fluctuated between 200-340 mg. per cent for a period of 14 days after which it settled down to 80-110 mg. per cent with complete disappearance of glycosuria. The polyuria and polydipsia significantly disappeared after two days of institution of therapy.

Case 3—Male, 53 years, a diabetic with neuropathy and nephropathy had a carbuncle in the gluteal region with ketosis and hyperglycaemia (400 mg. per cent blood-sugar). After incision of the carbuncle, patient was treated with antibotics and the ketosis and the hyperglycaemia were controlled with insulin. A dose of 80-100 units of mixed insulins was necessary to maintain the urine sugar-free. During the healing of the wound, he was switched on to the new schedule of treatment and insulin was simultaneously administered in gradually reducing doses and finally the urine could be maintained sugar-free with only 15-20 units of mixed insulin along with BZ 55 therapy.

Case 4—An elderly diabetic, 53 years, weighing 98 lb., presented himself with perforating ulcers in both heels and gangrene of the right big toe and marked ketosis with a blood-sugar level over 500 mg. per cent. A guillotine below-knee amputation was done, and antibiotics and insulin were given. There was no response to insulin at all in significant doses (140 units a day) and blood-sugar maintained high levels, although ketosis disappeared with insulin. Patient was then put on BZ 55 therapy, insulin being simultaneously administered. The dose of insulin could later be gradually cut down and finally the patient could be maintained sugar-free with blood-sugar levels around 120 mg. per cent with only 10 units of insulin along with the BZ 55 therapy. The patient's general condition markedly improved. He gained in weight, the ulcers in the foot healed and the general outlook of the patient changed thoroughly. A moderate hypoglycaemic reaction appeared in this case during the combined treatment with insulin and BZ 55 which was immediately relieved with the usual methods.

Case 5—A female, 49 years, of average build with G.T.T. levels around 380 mg. per cent (maximum) with severe diabetic neuropathy without any previous insulin treatment, was subjected to this therapy. There was a slight fall in blood-sugar level to 240 and 200 mg. per cent, but it was never maintained and soon rose to higher level in spite of continued therapy for a period of one month. The diabetic neuropathy progressed markedly and the therapy had to be given up and insulin started.

Case 6—A female, 20 years, weighing 68 lb., a case of severe juvenile diabetes with blood-sugar level over 800 mg. per cent and having had no previous treatment was subjected to this regime. The blood-sugar level continued to be high (over 700 mg. per cent) and no response could be obtained even with increased dose of 1·5 g. for over 3 weeks.

Case 7—A male, 29 years, with absolute renal glycosuria and blood-sugar level between 71 mg. and 100 mg. per cent was subjected to this regime with a suitably reduced dose (1·5 g. on the first day, 1 g. for the next two days and then 0·5 g. daily). No hypoglycaemic reactions whatsoever were observed. The urine was absolutely sugar-free from the very next day after starting the treatment and the average blood-sugar was recorded at 90-95 mg. per cent.

Apart from our own observations, as illustrated above, patients noted subjective improvement in their condition in many ways. A majority of the patients showed cheerful attitude and began to stop complaining about the disease and tried to appreciate their fitness for their duties, work etc. This, in our opinion, could not totally be due to the effect of the drug but may well partly be due to psychological effect from the use and availability of an oral antidiabetic drug instead of the usual monotonous insulin injections. Control of the polyuria and polydipsia was the next significant improvement reported by the patients. Among the complications of diabetes, diabetic neuropathy seemed to be little affected by the drug (Case 5). Asthenic diabetics definitely gained in weight and sthenic individuals did not show any significant change in their weight. Pruritus disappeared completely in one case.

Toxic and Side Effects

We have not observed any serious toxic effects so far with the drug. Hypoglycaemic reactions were noted in 3 cases, two of which appeared in those treated with insulin and BZ 55 and only one in those treated with BZ 55 alone. Allergic reaction in the form of mild urticarial wheals was noted in two cases on the second day of therapy and it responded promptly to oral antihistamines

and did not in any way interfere with the further continuation of the treatment. The blood counts did not appear to be significantly altered. The liver function tests, carried out in only 3 cases, did not show any evidence of damage in the liver during the therapy. No gastric irritation, vomiting or diarrhoea was noted as side-effects. Occasionally patients complained of fullness of the abdomen. No urinary symptoms were observed by us and we failed to detect crystalluria in the present series.

Conclusions

We have been impressed by the definite blood-sugar reducing action of the drug along with simultaneous disappearance of sugar in the urine. Blood-sugar levels like 500-600 mg. per cent to 200-300 mg. per cent were brought down to normal levels in many instances, by the use of the same dose of the drug, thereby suggesting a qualitative and not a quantitative action of the drug.

A small quantity of functioning insulin in the body appears to be definitely necessary for the action of BZ 55. This is difficult to assess beforehand.

As for the age group, maturity seems to be an important factor. Age over 35 years seems to be suitable in general for this therapy although success could be achieved occasionally in younger age groups. We could not give an upper limit for the age group since we found good results in cases over 70 years as well as in other cases.

Cases with marked diabetic ketosis or pre-coma conditions or diabetic coma must not be considered for BZ 55 therapy. Mild surgical complications, however, need not be a definite contraindication and individual assessment of the cases regarding fitness of BZ 55 therapy is necessary. Associated diseases like pulmonary tuberculosis, hypertension, urinary infections, etc. do not appear to be definite contraindications for the use of the drug.

Although the mode of action of insulin and BZ 55 appears to be totally different, the final clinical achievement appears to be the same, namely, reduction of blood-sugar level and both drugs apparently seem to synergise towards clinical improvement. Insulin and BZ 55 can be easily administered together in suitable cases with advantage and we have been impressed by the definite reduction of insulin dosage while on combined therapy.

Although increased carbohydrate tolerance has been reported and also observed by us in a few cases during therapy, we still hold that a definite dietetic regime is still necessary and marked relaxation in the diet might lead to incomplete control of the diabetic state. This view may require further clarification with increased clinical experience of the drug.

The toxic effects of the drug appear to be negligible in the present series, nevertheless it should be used with caution for the present.

Summary

A clinical report on the use of the drug in 40 patients of diabetes mellitus has been described and encouraging results from its use as an anti-diabetic agent have been recorded. The toxic effects seem to be negligible so far.

Our own tentative conclusions regarding the use of the drug alone and/or combined with insulin have been stated.

Acknowledgments

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SPECIAL ARTICLE

USE OF OXYGEN IN THE TREATMENT OF ASCARIASIS †

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Oxygen, known in Sanskrit as प्राणवायु, the gas of life, has been used so far for maintaining life and not for ending it. Talyzin (1954) wrote on the use of intragastric oxygen against human ascariasis. He quoted Kravetz as the pioneer of this new method of therapy and mentioned that oxygen therapy was simple and could be used on a large number of cases.

† From a paper read at 13th Bombay Medical Congress, November, 1955.

The paradox that a life sustaining gas for vertebrates could be used to kill nematodes, led us to the trial of the therapy. The method adopted by us differed in two respects from Talyzin's method, viz., (1) whereas he used saline purgative to facilitate the expulsion of roundworms after administration of oxygen, in our trial saline purgative was not used; (2) the amount of oxygen given by Talyzin varied from 1 to 2 litres, whereas a uniform dosage of oxygen was employed in our trial.

Modified Method of Oxygen Administration

In the method adopted by us the preparation of the patient consists in restricting from the morning of the therapy, any food including fluids, till an hour elapses after the administration of oxygen. In the morning, a soap-water enema is given, and after the bowels are evacuated, the stomach tube is passed into the stomach and 1 litre of oxygen is administered in all the cases in the following way: (1) An *oxygen cylinder* from which oxygen is allowed to flow at a controlled rate into the inlet opening of (2) the *Davidson's pneumothorax* apparatus in which it passes through either of the bottles of 100 ml. capacity each, by displacing the water, when the bottles are raised and lowered. The oxygen then leaves the apparatus by the exit opening where the stomach tube is connected (Fig. 1). It is thus delivered into the stomach of the patient. Use of Davidson's pneumothorax apparatus made the administration of oxygen precise, quick and elegant. No purgative was given. An hour after the administration of oxygen, the patient was permitted to take fluids, and about three and a half hours later, he was allowed to take his meals.

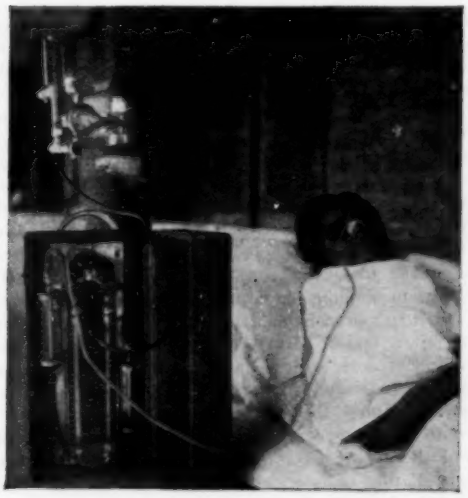

Fig. 1—Method of Oxygen Administration with Davidson's Pneumothorax Apparatus Adopted in the Trial.

Only adult patients whose stools on routine examination showed ova of roundworms, were chosen for the treatment. The treatment was given to them, irrespective of their chief complaints, which in a majority of instances were not related to ascariasis nor did they indicate the patient's infestation with roundworms. As a control another group was treated with santonin alone.

Discussion

In the previously published series (Vora, 1955) out of 31 patients, a positive response that is expulsion of the adult worm, was obtained in 20 patients, i.e., 64·5 per cent of cases. With this encouraging result, attempt was made to find out how pure oxygen acted. The possibilities were: (1) that oxygen acted by augmenting the peristalsis as a result of distension of the stomach and intestines, and thus causing the worm to lose hold on the intestinal wall; or (2) that oxygen acted as an inert gas like nitrogen by creating an unfavourable environment for the worm in the intestines; (3) that oxygen acted specifically as a chemical agent against the worm. The first possibility was ruled out, because only two patients out of 31 patients gave an indication of hurried peristalsis by their experiencing a desire to defaecate, while the oxygen was being administered. The second possibility was disproved by carrying out a clinical experiment in which air was substituted for pure oxygen for intragastric administration (Vora, 1955a). This left out the third possibility of the mode of action of oxygen, viz., that pure oxygen acted specifically against roundworms.

Side effects of oxygen therapy—The side effects was temporary and trivial. Transient fullness of abdomen, nausea, eructations, and transient urge to defaecate were the only manifestations. About one-third the number of patients never had any reactions (Vora, 1955) and in the remaining two-thirds, the reactions were trivial in nature, and could be minimised or avoided by keeping the rate of administration of oxygen between 30 to 60 seconds for each 100 ml. of oxygen or by interrupting the administration of oxygen for half to one minute, and then re-starting it. Intragastric oxygen does not cause any gross change in the gastro-intestinal tract (Vora, 1955).

An attempt was made to enhance the positive response by substituting Miller-Abbot tube for

stomach tube in 18 cases. But it did not show any superiority over the delivery of oxygen in the stomach.

The number of worms expelled after oxygen therapy varied from 1 to 40 at a time. In the majority of instances, the expulsion took place within 24 hours of oxygen administration. With a few exceptions, all the worms were dead. In a few instances, the expulsion took place on the third or fourth day of administration of oxygen. Worm-clearance was studied in 31 patients, and the result was similar to that of santonin, which gives a worm-clearance rate of 30 per cent (Bockus, 1944).

The variation in the positive response in the larger series (Vora, 1955b) could be explained by an adequately large sample giving a more correct idea about the results than the smaller number of cases of the first series (Vora, 1955). The lowering of positive response in the larger series was due to male patients showing poorer result than the female patients. This cannot be explained at present. Further observations are still being carried out, and it may be possible to collect more facts on other aspects of this therapy.

Oxygen reaches nearer to the ideal anthelmintic, which without being toxic to the host is toxic to the parasite. Oxygen could be considered the ideal anthelmintic only if it could give 100 per cent worm-clearance.

Summary

Intragastric administration of oxygen is an effective therapy for roundworms. Oxygen has a specific action against the roundworms. Therapy with intragastric oxygen is the least toxic and least expensive. Its results are comparable to those of santonin, both as far as positive response and the worm-clearance are concerned.

Acknowledgment

I thank Dr. S. V. Joglekar, Superintendent, Municipal General Hospital, Sion, Bombay, for permission to publish this paper and encouragement in carrying out the work.

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CASE NOTES

LOCALISED PULMONARY HAEMOSIDEROSIS IN A CASE OF MITRAL VALVE DISEASE

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Introduction

Pulmonary haemosiderosis is a condition in which there is deposition of the iron containing pigment, haemosiderin, in the alveoli. The pigment is an insoluble product of extravasated blood and is contained principally in the phagocytic cells. Alveolar macrophages laden with pigment are a prominent feature in the passive congestion of lung in valvular diseases of the heart of rheumatic origin and for this reason, they have been called 'heart failure cells'. In most instances, these are scattered evenly throughout both lung fields but may in certain cases be limited to a particular lobe or segment producing what is known as focal or localised haemosiderosis. These nodules may on occasions attain sufficient size and density to cast shadows on roentgenograms.

The present paper deals principally with the endogenous source in chronic heart failure due to mitral stenosis of rheumatic origin. There have been very few reports about haemosiderosis in our country although the rheumatic heart disease is not uncommon.

Historical

Although the condition of pulmonary haemosiderosis was first mentioned by Virchow in 1858 it was not until 1928 that Rosenhagen first described its radiological features and histopathology. Kohler (1935) stated that the aggregate shadows in roentgenograms were due to heart failure cellular nodules. Anglin (1938) reported a case of mitral stenosis with changes in the lungs simulating miliary tuberculosis. Twining (1938) assessed the appearance of these shadows as due to end on vessels and alveoli filled with 'heart failure cells'. Roch (1940) observed similar lesion in the case of a woman who died after 12 years of invalidism. The postmortem findings confirmed deposit of haemosiderin in the lung parenchyma, and the heart showed congenital mitral lesion. Hurst *et al* (1944) found five cases of mitral stenosis with nodular pulmonary shadows in a survey of one and half million recruits. Strassmann (1944) attributed the condition as due to bleeding in presence of pulmonary oedema. Scott *et al* (1947) published the report of a case of haemosiderosis and also observed the radiological appearances of iron filings placed haphazardly in between wax slabs. These observations supported the impression that haemosiderin granules when deposited in the alveoli may cast similar

shadows on chest skiagrams. They quoted the incidence as 1 per cent in mitral stenosis cases. Lendrum *et al* (1950) made a very illustrative study in an article on the lung changes in cardiac disease with reference to haemodynamics. It is due to their effort and study of bronchopulmonary vascular supply that our present conception of haemosiderosis stands. They held the view that the deposit can occur in mitral stenosis cases in presence of right ventricular hypertrophy, the prerequisite being an apparently healthy subject. Tricuspid stenosis is an antagonistic condition. Baker *et al* (1952) observed nodular aggregate shadows in the lung fields in five out of fifty cases of mitral stenosis.

Radiological feature in the lung fields—Radiography shows miliary or nodular shadows. The average nodulation varies from 1-2 mm. in its largest diameter. In advanced cases it may be upto 5 mm. Foci less than 1 mm. are not usually seen in the roentgenogram. If the nodules are widely scattered doubt may arise and it may be mistaken for miliary tuberculosis, eosinophilia lung or pneumonoconiosis. Apices of the lungs are usually excluded but not always. The shadows are discrete with apparently healthy lung in between.

Case Report

A. K. B., a 34 years old male bar attendant was admitted on 9-8-55 to Carmichael Hospital for Tropical Diseases, Calcutta, for diarrhoea of 18 months' duration. The other notable symtoms were palpitation and dyspnoea on exertion since an attack of rheumatic fever when he was 17. There was no history of haemoptysis.

On examination the apical impulse was in the 5th left intercostal space on the left midclavicular line. There was a systolic and a diastolic murmur in the mitral area. The pulse was 71 per minute. Blood pressure 90/60 mm. of Hg.

Electrocardiogram (Fig. 1) showed a heart rate of 71 p.m. with regular rhythm with evidence of auricular enlargement and left ventricular hypertrophy.

The liver was slightly enlarged. Lungs showed no clinical abnormality.

Laboratory investigation—Urine and stools—no abnormality; Sputum—no A.F.B. present. Gastric analysis—hyperchlorhydria. Sigmoidoscopy showed ulcerative colitis. Hb.—17·98 g. per cent; R.B.C.—5·15 million/c.mm.; W.B.C. 6,300/c.mm. with neutrophilis 60 per cent, lymphocytes 36 per cent, monocytes 2 per cent and eosinophils 2 per cent; E.S.R.—2 mm. per hour.

Skiagraphy—The skiagram of the chest showed: Lung fields—mottled shadows on the right specially in the upper zone. They measured 1-3 mm. on the average. The margins of the shadows were irregular, the aggregate was not so dense. The nodules were discrete with intervening normal lung tissue (Fig. 2, *vide* Plate).

Heart shadow: Hypoplasia of the aortic arch, the shadow of the enlarged left auricle could be seen through the enlarged cardiac shadow. There was conspicuous absence of the mitral configuration. The findings are consistent with mitral stenosis with incompetence with signs of haemosiderosis in the right upper zone (Fig. 3, *vide* Plate).

Opaque meal and opaque enema examinations did not yield much information.

The patient left hospital on 9-9-55 much improved with regard to the bowel condition.

Discussion

The nodular shadows in the lung fields of this case could not be attributed to miliary tuberculosis, eosinophilic lung, cardiac failure, passive congestion or pneumonoconiosis. There was also no evidence in favour of rare lung conditions such as histoplasmosis and sarcoidosis. In view of the fact that this patient had had mitral valve lesions for many years it is probable that the radiological lesions were due to haemosiderosis of

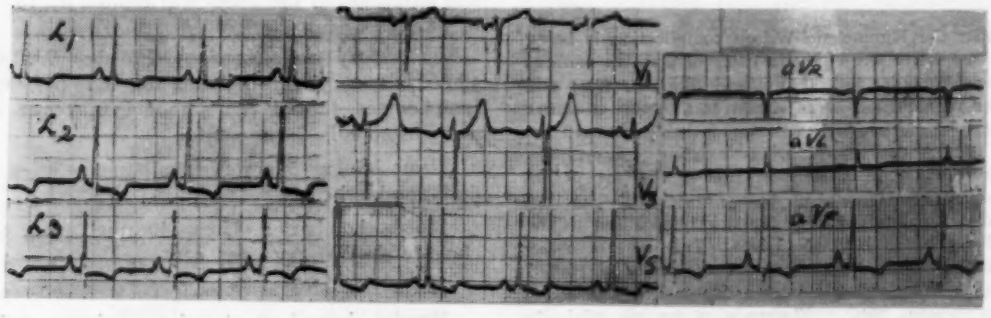

Fig. 1—E.C.G. Showing Evidences of Auricular Enlargement and Left Ventricular Hypertrophy.

endogenous type. The exogenous source of haemosiderosis as described by Pendergrass *et al* (1949) cannot be applied to this case in consideration of his occupation.

Summary

The literature on pulmonary haemosiderosis is reviewed and the report of a case in a patient with mitral valvular disease admitted to the hospital for ulcerative colitis is presented. The diagnosis has been based on the radiological appearances of the lung fields and by exclusion of other causes giving rise to nodular shadows.

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KIMMELSTIEL-WILSON'S SYNDROME WITH HOFFA'S DISEASE

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Whilst the Kimmelstiel-Wilson complication is being recognised fairly frequently in cases of diabetes mellitus (Henderson *et al*, 1947; Clark and Skillern, 1955) and whilst osteo-arthritis occurs almost as a matter of course in elderly obese patients, this case is being reported because of the two complications existing concurrently. Moreover, the type of osteo-arthritis of the knee joints manifested was unique in being associated with the presence of painful pads of fat strictly localised to the medial aspects of both the knees. This type of osteo-arthritis has been described under the name of Hoffa's disease or osteo-arthritis juxta-articularis adiposis dolorosa (Copeman, 1946). The pads of fat are clinically characterised by their painfulness and are alleged to be of aetiological significance in the pathogenesis of the osteo-arthritis. Copeman (*loc. cit.*) considers this to be a rare disease.

Case Report

K. B., Hindu female, aged 55 years was admitted to the Hospital with history of rapid development of obesity during her menopause, about 15 years ago followed by progressively increasing pain in the knees a few months after. No other joints had manifested any pain. About 8 years ago she developed polyuria, polydipsia and polyphagia and burning in the soles of her feet. Occipital headaches and diminution of vision arose about 5 years ago. During the last six months she was suffering from exertional dyspnoea and palpitation. For the last 3 months her nocturia increased, and she developed pruritus of the vulva. The resultant scratching had produced a painful swelling in that region.

Both her parents had symptoms of diabetes and died of pyogenic complications. Three brothers and one sister all died suffering from the classic symptoms of diabetes mellitus and pyogenic infections. A brother who is still living is also a diabetic. Most of her 9 deliveries were postmature and associated with difficulty.

On examination she was found to be obese and dyspnoeic with non-tender diffuse fat deposits over the shoulders and abdomen. There were two huge pendulous pads of fat over the medial aspect of both knees (Fig. 1, *vide* Plate), the accumulations being painful and tender. Oedema over the feet was present. Temperature was 98·4°F, pulse 104/min., there was thickening of arterial wall, B.P. was 224/120 mm. of Hg. The jugulars were engorged. The lungs showed bilateral basal congestion. The liver was 4 fingers enlarged, soft and tender. Vibration sense over the inferior extremities was markedly diminished. The knee and ankle jerks were absent ; genu varum was present and extension of the knees was limited by 15° due to pain.

Laboratory investigations—Blood : W.B.C.—12,000/c.mm. with polymorphs 55 per cent, lymphocytes 42 per cent ; monocyte 1 per cent and eosinophils 2 per cent.

Urine—Sugar 5 per cent, albumen + +, a few fine granular casts.

Blood chemistry : Urea—40 mg. per cent, cholesterol—300 mg. per cent.

Kahn test—Negative.

Fundus showed punctate haemorrhages on both sides, there were a few waxy crenated exudates

on the left between the macula and the disc. The arteries showed grade 2 hypertensive changes, the diabetic retinal changes were of grade 2.

X-ray of the knee joints showed osteo-arthritic changes. An osteophyte is also seen. (Fig. 2, *vide* Plate).

Discussion

Hoffa's disease or osteo-arthritis juxta-articularis adiposis dolorosa is the term applied to the accumulations of subcutaneous fat in the neighbourhood of joints, which deposits are markedly tender to touch and are often associated with limited movement and some difficulty and creaking of the joints. The condition occurs most frequently in middle aged obese women and is usually bilateral. Commonly the fatty masses are to be found on the medial sides of the knee joints, less frequently the inner sides of the elbows and the outer sides of the ankles and hips are affected. The case under review corresponds almost exactly to the classic description insofar as the age and sex incidence, the joint involved and the localisation of the fatty masses are concerned. The painful element in the adiposity may be due to the fact that local nerves are incarcerated in the fatty masses and develop a neuritis. This, of course, is quite distinct from the more generalised peripheral neuritis which occurred in the case because of diabetes.

The presence of painful adiposity brings to mind Dercum's disease but in that condition the fatty masses elsewhere are also painful and the marked asthenia and psychic disturbances present in that condition were not seen in this case.

The aetiology of Hoffa's disease is not clearly understood and the fact that diabetes mellitus and Hoffa's disease co-existed may be of some significance or may be purely coincidental.

Summary

A case of long-standing and uncontrolled diabetes mellitus who developed Kimmelstiel-Wilson's syndrome is reported. In addition she had an osteo-arthritis of the knee joints associated with painful pads of fat over the medial aspect of the knees, a condition known as osteo-arthritis juxta-articularis adiposis dolorosa of Hoffa's disease.

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ACUTE HAEMOLYTIC ANAEMIA FOLLOWING SULPHADIAZINE THERAPY

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With the advent of antibotics, the use of sulphonamides has already been reduced in clinical practice. One of the reasons for such restricted application of sulphadrugs must have been the knowledge of various toxic effects likely to be produced by them.

Isolated instances of one or more complications are, however, still noticeable and there may be occasions when a pretty severe reaction may occur and take the physician unawares. An instance of acute haemolytic anaemia complicating sulphadiazine therapy is recorded here.

Case Report

K. L. B., 21 years old Hindu male, was admitted in the Hospital on 30-3-56 with the following history. Four days previous to admission, he had a sudden attack of fever with chill and was associated with severe aches and pains all over the body. There was no remission of fever during succeeding days—the temperature varying between 102°F. and 104°F. He was given an alkaline diaphoretic mixture on 25-3-56 and two days later 0·5 g. sulphadiazine three times a day was prescribed. On 28-3-56 the patient noticed that his urine was slightly red in colour. The next day and the day after, the urine was port wine in appearance and there was pain in the hypogastrium. There was progressive weakness during these days and the patient fainted on two occasions while coming back from the toilet.

On examination the patient appeared seriously ill, was markedly pale and the conjunctiva was tinged lemon-yellow. The pulse rate was 120 per minute, the volume and the tension being moderate. The temperature was 100·4°F. and blood pressure 120/80 mm. of Hg. The tongue was dry and coated. The liver was just palpable but not the spleen.

Laboratory investigations—Urine showed presence of albumin and blood, a few leucocytes and granular casts but no red blood cells. Blood: Hb.—30 per cent.; R.B.C.—2·5 million/c.mm.; W.B.C.—6,500/c.mm. with neutrophils 68 per cent, lymphocytes 28 per cent and eosinophils 4 per cent. No malarial parasites were detected.

Bleeding time was 2 minutes and coagulation time 2·5 minutes.

A diagnosis of haemoglobinuria was made and pending the establishment of the aetiology, treatment was started with blood transfusion (840 c.c.) and penicillin (5 lac units) intramuscularly twice a day. The patient was encouraged to take fluids liberally by mouth.

On 1-4-56, 1200 c.c. of 4 per cent sodium sulphate solution was given intravenously and a second blood transfusion of 280 c.c. was given on 2-4-56.

The general condition of the patient improved and the urinary output which alarmingly started falling on 1-4-56 went up again after the administration of sodium sulphate. Penicillin injection was continued till 12-4-56.

Spectrometric examination of the urine done on 1-4-56 showed α and β bands of oxyhaemoglobin only.

On 9-4-56, a detailed investigation was done particularly to exclude any auto-immune haemolytic mechanism. The results were: Hb.—11·02 g. per cent, R.B.C.—3·06 million/c.mm., P.C.V. —34 per cent., M.C.V.—111·1, M.C.H.—36·0, M.C.H.C.—35·0 per cent, reticulocytes—0·6 per cent. W.B.C.—5,000/c.mm. with neutrophils 75 per cent, lymphocytes 21 per cent, monocytes 2 per cent and eosinophils 2 per cent. Platelets normal. Fragility test of R.B.C.—Normal. Coombs' test was negative and no cold agglutinins were demonstrable. Total blood proteins were 7·06 g. per cent with albumin and globulin as 3·06 and 3·75 g. respectively. Blood urea and N.P.N. were 32 and 39·2 mg. per cent respectively. Van den Bergh—negative. Icterus index —4·0 units. E.S.R.—75 mm. per hour. Kahn test —negative.

Discussion

The acute onset of haemoglobinuria associated with pyrexia makes one in the tropics think of black water fever first but in this particular case there was no splenic enlargement neither any history of taking quinine by mouth. The possibility of sulphadiazine being the cause arose from the circumstantial evidence present. A rapid breakdown of red blood cells had apparently occurred giving rise to an acute haemolytic anaemia which is recognised as a serious complication of sulphonamide therapy.

In the case under review the total amount of sulphadiazine administered was only 3 g. The haemoglobinuria started on the second day after taking the drug. The anaemia developed rapidly and icterus was also noticed when the patient was admitted two days later. An obstruction of renal tubules was threatened 36 hours after the admission of the patient into the hospital and intravenous administration of sodium sulphate solution was clinically found to be helpful. Blood transfusion sustained the patient during haemoglobinuria. The conclusion we had to draw as regards the cause was that the patient had an idiosyncrasy to the drug. For confirmation a sensitivity test was done during convalescence by injecting intracutaneously 0·1 c.c. of sulphadiazine sodium solution together with a normal saline control. A reaction in the form of a vesicle about 6 mm. in diameter appeared within 24 hours (Fig. 1, *vide* Plate).

Summary

An interesting case of acute haemolytic anaemia with haemoglobinuria following administration of sulphadiazine is reported.

Acknowledgment

Our thanks are due to Dr. M. N. Sarkar, Superintendent, Calcutta National Medical College Hospitals, for allowing us to publish the case note.

We also offer our gratitude to Dr. J. B. Chatterjea, Officer-in-charge, Haematology Department, School of Tropical Medicine, Calcutta, Dr. S. Mitra, House Physician and Capt. S. K. Sarkar, Clinical Pathologist, C. N. M. C. H. for assisting us in carrying out the investigations.

RABIES DUE TO MONGOOSE BITE

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Cases of rabies due to mongoose bite are rare. The cases reported below came on the same day from different corners of the Tranquebar Panchayat area, the distance between the houses being about two miles.

Case Reports

Case 1—Laxmi, aged 22 years, was examined in her house on 23-7-56 for fits while attempting to eat or drink. The trouble started from about 10 A.M. the same day.

The patient about 2½ months ago was bitten by mongoose causing three wounds on her left hand. The wounds were treated in the local hospital. The history of the mongoose bite came out only while questioning the cause of the scars. Later on it was found out that another woman was bitten by a mongoose somewhere about the same time and in the same locality.

On examination, the patient was found lying on the back in an exhausted state. The body was cold and sweating. The temperature was 99°F.

When she was asked to drink some water, she had an acute spasm affecting the muscles of deglutition and respiration. The respiration at other times was found to be normal. The pulse rate was 76 per minute and was of poor volume. The patient was carrying seven months.

She was given 1 gr. of phenobarbitone and some water to push it down.

When seen next morning, she was in acute attacks of respiratory spasm. The patient was given ¼ grain morphia. She died on the night of 24-7-56.

Case 2—A boy, aged 9 years, complained of pain in the chest and difficulty to swallow milk at about 9 P.M. on 23-7-56. The patient was seen on the morning of 24-7-56. His complaint in the morning was difficulty to swallow, pain in the chest and legs. The patient was given 25 c.c. of 25 per cent glucose solution. During the injection, the respiratory spasms increased.

The patient died in the night the same day.

Comment

To queries from the writer to the Director of the Pasteur Institute of South India, Koonoor, about transmission, frequency and disposal of cases due to mongoose bite, the following reply was received—"The mongoose can transmit rabies. The number of cases bitten by the species of animal is very few. All persons bitten should be given a course of antirabic treatment."

Acknowledgment

I am grateful to the Director, Pasteur Institute, Coonoor, for his kind co-operation.

TRICOPHYTIDE

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The term 'tricophytide' means an allergic skin reaction in the form of eczema, either local or generalised, produced by sensitisation of the skin from a distant focus of fungal infection. The fungus itself is not found generally in the phytide lesion.

Two cases are reported below.

Case Reports

Case 1—Miss A, a Jewish lady, had a fungus infection on some of her toe nails. On examination she had acute papulovesicular lesion on her legs and hands. Serum was oozing from some parts presenting a typical clinical picture of acute weeping eczema. There was scaliness and secondary pyogenic infection here and there. The parts were very itchy. The patient's general health was poor and she was running a low temperature. There were no other signs of allergy in herself or any such history in her family.

On microscopical examination, an epidermophyton was found in the affected nails but none on the skin lesions. Tricophytin test was positive.

Lotio argenti nitras, antibiotic ointment, calamine lotion, auto-haemotherapy and calcium injections, combined penicillin and streptomycin injections and sedatives were given to combat the secondary infection and also for the eczema. Later a few x-ray exposures were applied. The skin lesions cleared up in a few days. The nail lesions were treated with Castellini's fuchsin paint.

Relapse took place after some time and the patient had several such acute attacks. On one occasion at last, a fungus was microscopically demonstrated in the eczematous lesion on the calf of one of her legs. This was probably a superimposed infection spread by scratching from the nails, as no fungus was demonstrable in any other affected parts of the body except the nails.

Gradually the nail lesions cleared up and the patient had no more allergic attacks.

Case 2—Capt. W., a European, had acute dermatitis on his hands and feet, just like papulovesiculosquamous eczema attended with itching and sometimes weeping. The patient had several attacks and each attack subsided on x-ray exposures, local applications and ACTH internally.

No focus of fungus infection could be found in the nails, groins or buttocks. Only on one occasion, an epidermophyton was seen microscopically on the calf lesion which was primary and this alone helped to establish the real diagnosis.

Comments

These two cases stress the importance of a microscopical examination of eczematous skin lesions and of remembering the possibility of a trichophytide in all cases of frank eczema of the hands and feet.

It must also be emphasised that it is extremely difficult to demonstrate the offending fungus. Painstaking search and an expert technique are essential. Tricophytin test may be of value but not always diagnostic.

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PROGRESS WITH THE OXYTOCIC FACTOR OF THE PITUITARY

After the discovery[1] in 1895 of the so-called pressor effect of whole-gland extracts from the pituitary, a substance was isolated[2] from the posterior lobe having similar properties. In 1906 it was discovered[3] that an extract from the posterior lobe of the pituitary gland possessed a remarkable capacity for the stimulation of the unstriped muscle, and later, in 1909, its effect on the isolated uterus of the virgin guinea-pig was shown[4]. Blair-Bell appears to have been the first to use pituitrin in labour, when he reported[5] excellent results in 3 cases of postpartum haemorrhage, including one of placenta praevia. Satisfactory results with pituitrin were also reported[6] in 50 cases of postpartum haemorrhage. Posterior pituitary extract later became well-known as an oxytocic agent when in 1911 Hofbauer[7] recommended its use to stimulate uterine contractions during the first and second stages of labour. Soon after, the posterior pituitary extract was recognised to possess vasopressor, galactogogue and antidiuretic properties, besides its ability to make the uterus contract. The oxytocic principle and the pressor factor were separated in 1928[8]. After this, the two relatively pure hormones became available commercially as 'pitocin' (or oxytocin) and 'pitressin' (or vasopressin), with their potencies defined in terms of the U.S. Pharmacopoeia, one unit of either hormone representing the activity contained in 0·5 mg. of standard (U.S.P.) pituitary powder.

The pharmacological properties and consequently the clinical uses of the posterior pituitary extract were naturally not clearly defined, nor well understood, in the earlier years; opinions varying from high enthusiasm to much scepticism. Its use for induction of premature labour was perhaps first reported in 1913[9]. A technique of its use for medicinal induction of labour was introduced in 1922[10]. Though the effectiveness of pituitary extract for induction of labour, by nasal application, has been demonstrated[11] the method has been given up long since. Successful results from the intravenous use of pituitrin for induction of labour were reported in 1926[12]. Many other workers later reported favourably on such intermittent intravenous medication. The use of continuous drip infusion of oxytocin in a suitable small dosage of a dilute solution appears to have been first suggested in 1943[13]. Favourable clinical reports soon followed from all quarters, and this method of administering oxytocin is at present well-established for use in induction of labour and also for hypotonic uterine activity in labour.

The oxytocic property of the posterior pituitary extract thus earned a well-deserved place in the therapeutic armamentarium of obstetric practice. Further safety and extended clinical use even in hypertensive cases became possible with commercially available oxytocin. It was, however, soon found that the commercial oxytocin is not entirely free from the pressor factor. Some surprise was caused by the demonstration[14] that pitressin, the pressor factor, is also slightly oxytocic and affects the uterus. These disturbing features of the commercial preparations and improved knowledge of the multifarious secretory activities of the anterior lobe of the complex pituitary gland naturally led to intensive studies and researches into the secretions, functions and modes of action of the neurohypophysis. It was thought[15] that the secretion of the posterior pituitary was a single substance with multiple activities. This was soon rendered unten-

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able after separation of oxytocin and vasopressin. A pure protein carrying both oxytocin and vasopressin was isolated from the posterior lobe in 1942[16]. Lately, a convincing proof of the duality of the hormone has been furnished[17] and, through painstaking co-ordinated researches, the chemical structures of oxytocin[17] and vasopressin[18] have been established with certainty. Later on, investigators[19, 20] have been able to synthesise oxytocin. It is interesting to learn that both oxytocin and vasopressin are polypeptides, each containing eight amino acids, of which six are common to both; namely asparagine, cystine, glutamine, glycine, proline and tyrosine. In addition, oxytocin contains leucine and isoleucine; whereas beef vasopressin contains phenylalanine and arginine, and hog vasopressin, lysine in place of arginine. Pure vasopressin (600 U.S.P. units in 1 mg.) from beef seems to be identical with the antidiuretic hormone and does contain a small amount (about one-fifth) of galactogogue and a still smaller (about one-seventeenth) potency of oxytocic property. In contrast, 1 mg. of pure oxytocin (500 U.S.P. units of oxytocic and galactogogue activity) contains only 7 U.S.P. units of pressor properties. Recent studies have revealed interesting features concerning the storage, liberation and other properties of these hormones; about 1 per cent of the total hormones being extractable from the hypothalamus, the rest being found in the posterior lobe[21]. Part of this hormone store, in almost equal ratio, seems to be in polypeptide form. Oxytocin and vasopressin, present equally in the posterior lobes of both sexes, are also secreted together, often in disproportionate amounts, in response to various stimuli like suckling[22], coitus[23, 24], electrical stimulation of the pituitary stalk[25] and intracarotid infusion of hypertonic saline[26]. It is believed[21] that while the kidney is extremely sensitive to the antidiuretic effect of vasopressin, relatively large doses of oxytocin are necessary to secure a response from the uterus or the myoepithelium of the lactating alveoli. Regarding the release of vasopressin, it has been suggested[27] that excretion of water is regulated through osmo-receptors in the hypothalamus responding to acute changes in plasma osmotic pressure. The neurohypophysis seems, however, to act directly in the restoration of the normal volume, regardless of the osmolarity, only when the plasma or extracellular fluids are greatly swollen or contracted.

One well-known effect of oxytocin is on the myoepithelium of the lactating breast, oxytocin being secreted within half a minute of applying a suckling stimulus[22]. This latter role of oxytocin has already become highly important from the clinical standpoint.

With the synthesis of this complex polypeptide now clearly effected, attempts have naturally been directed to the manufacture of oxytocin from synthetic sources, and its extensive use as a consequence. It has been shown that the synthetic material has its physical, chemical and biological properties identical with those of the natural product[19, 28]. Synthetic oxytocin appears to have had only limited trials[29-32] so far. It is indeed very gratifying to note that the results of these trials indicate that "the action of synthetic oxytocin upon the human uterus is indistinguishable from that of purified preparations of the natural substance"[32].

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In memoriam

DR. A. DAS, M.B., L.R.C.P., M.R.C.S. (Eng.), M.R.C.P. (Lond.)

The sad and sudden death of Dr. Amalananda Das removes from our midst an erudite scholar, an earnest research worker, a successful clinician, a respected teacher and above all an amiable and sincere colleague.

He was born in a well-known Brahmo family of Barisal, Bakarganj, on 6th November 1906. It was very unfortunate that he lost both his parents at an early age.

He graduated with honours in midwifery, from the Medical College, Bengal, in 1930. After working in the same institution as a house physician, he went abroad and was admitted as a Member of the Royal College of Surgeons and Member of the Royal College of Physicians, London, in 1934. On his return in the same year, he entered the Bengal Medical Service as a Civil Assistant Surgeon.

In his professional career, he took up teaching as his primary work. He was appointed teacher of medicine in Mymensing and Burdwan, after which his services were lent to the Government of Orissa. Here he served as the first Professor of Medicine of the Cuttack Medical College. Later he became the Professor of Clinical Medicine, Medical College, Bengal. When the Campbell Medical School was raised to the status of a college (N. R. Sircar Medical College) in 1950, he became the Professor of Medicine and was placed in charge of reorganisation of the department. His uncommon abilities, devotion to duty, untiring energy and determination of purpose, have made it possible for the Department of Medicine to be what it is today. During this period he also made valuable contributions to medical research. As a teacher he was very popular with the students, and took active interest in their social and other activities.

Dr. Das was elected as a member of the Journal Committee in the year 1951 and had been serving with distinction the cause of this journal till his death.

Our loss is a personal one as we were in a team. His invaluable scientific contributions in the form of original observations and editorial comments always served as a definite source of inspiration. His wise counsel and his love for journalism were valuable acquisitions to the Journal, as also to those who conduct it.

It is unfortunate that his life has been cut short. He had an attack of apoplexy on his return from a brief holiday and on the day he was to assume his normal responsibilities.

We offer our heartfelt condolence to the bereaved members of the family.

CURRENT MEDICAL LITERATURE

Coarctation of Aorta and Patent Ductus Arteriosus

COLLEY AND OTHERS (*Circulation*, **13** : 843, 1956) write that the association of a patent ductus arteriosus with coarctation of the aorta has occurred in about seven per cent of cases of coarctation of the aorta in which surgical treatment was used. In many cases the patency of the ductus arteriosus is small and unimportant physiologically and is discovered at the operating table. This group presents little trouble, either technically or prognostically to the surgeon. The group in which a patent ductus arteriosus is associated with pulmonary hypertension, however, is important to recognize preoperatively, both because of the greater risk of operation and because of the guarded early and late prognosis.

The pathologic physiology, surgical technic, and postoperative care of the patient with coarctation, patent ductus, and pulmonary hypertension are discussed.

Effect of Hyperventilation on ECG

WASSERBURGER AND OTHERS (*Circulation*, **13** : 850, 1956) from the electrocardiographic study of 350 normal adut males following brief hyperventilation observe :

In 37 patients, T-wave inversions were observed in two or more of the precordial leads. This phenomenon is regarded as a latent "juvenile pattern".

Psychiatric evaluation of these patients revealed them to be tense, immature and emotionally disturbed. "Juvenility" is expressed in their personality structure as well as in their electrocardiogram.

Respiratory alkalosis was excluded as the underlying mechanism by observation of the pattern during forced breathing of high CO_2 atmospheres.

The hyperventilation effect is believed due to a vagal reflex. Support is given this concept by demonstration of the blocking effect of Pro-Banthine and potassium.

Caution is advised in interpreting isolated T-wave inversions as indicative of organic heart disease, particularly in emotionally disturbed, tense individuals. It is proposed that isolated T-wave inversion be deleted as a criterion for a "positive" exercise test.

Clinical Significance of Hyperglobulinaemia

STOVER AND OTHERS (*Ann. Int. Med.*, **44** : 841, 1956) from the analysis of the hospital records of a series of 394 patients with hyperglobulinaemia give in the following lines the summary of their observation on the clinical significance of hyperglobulinaemia :

Of these, 268 patients had diseases generally associated with an elevated serum globulin, viz., multiple myeloma, sarcoidosis, collagen disease, liver disease, cancer, chronic pulmonary disease and certain infections.

The remaining 126 cases could not be placed in any of the above diagnostic categories and were termed "unclassified."

In patients whose serum globulin was 5·0 g. per 100 ml. or higher, over 90 per cent had specific "hyperglobulinaemic" diseases; about half had either multiple myeloma, sarcoidosis or collagen disease.

In patients with only slightly elevated serum globulin values (3·9 to 4·2 g. per 100 ml.), almost one-half were in the "unclassified" category. The incidence of "unclassified" cases decreased in the intermediate ranges (4·2 to 5·0 g. per 100 ml.) of globulin elevation.

Only about 20 per cent of patients with hyperglobulinaemia also exhibited hyperproteinaemia.

The implications of these data are discussed with reference to the use of the albumin-globulin measurement as a diagnostic aid.

Prevention of Thromboembolic Complications in Myocardial Infarction

GLUECK AND OTHERS (*Circulation*, **13** : 884, 1956) in giving a summary of their observation on the clinicopathologic study on thromboembolic complication in myocardial infarction write :

Autopsy records of 151 patients dying of myocardial infarction in a large private hospital were reviewed. Seventy-six patients received anticoagulant therapy, and 75 patients did not. Embolic phenomena were of common occurrence in patients dying with myocardial infarction. Clinically, these were often overlooked. The utilization of anticoagulant drugs reduced strikingly the incidence of embolic complications from 41 per cent in the "untreated" series to 9 per cent in the "adequately treated" group. Emboli responsible for the death of the patient, as judged by the pathologist, were reduced from 21 per cent in the "untreated" group to 4 per cent in patients receiving adequate therapy. Inadequate, delayed or poorly planned therapy afforded the patients no protection from this complication. Thrombophlebitis was markedly diminished in "treated" patients, and fewer mural thrombi were found in patients who received adequate therapy. Extension of the infarct or a new infarct was uninfluenced by anticoagulant drugs.

Haemorrhage in the present series was not a significant cause of death. Rupture of the ventricle was noted to occur in both groups regardless of therapy.

The patients could not be rigidly classified on admission to the hospital in regard to their eventual prognosis. This observation, plus the difficulty of diagnosis and the unpredictability of the disease, confirmed the inference that the decision to use anticoagulant therapy should not be dependent upon rigid diagnostic criteria for infarction. The benefit to be obtained from these drugs during the acute phase of illness can be ascribed to the prevention of thromboembolic complications. The indication for their use is a clinical condition in which thromboembolism is a real hazard. In this role they are a useful adjunct in the treatment of myocardial infarction.

Neohydrin in Chronic Congestive Cardiac Failure

GRIFFITH AND OTHERS (*Ann. Int. Med.*, **45** : 7, 1956) in reporting on the results of treatment of chronic congestive cardiac failure with Neohydrin for from 8 to 65 months observe :

Neohydrin (3-chloromercuri-2-methoxypropylurea) has been described as one of the most efficient organo-

mercurial diuretics available. The present study has confirmed its efficacy in a series of patients treated with it daily for periods of time as long as five years.

Injury to the epithelium of the renal tubules from continued use of organomercurial diuretics has long been considered one of the dangers of this drug. In this series there was no clinical evidence of such damage attributable to the drug.

Histologic study of the kidneys was possible in one patient (case 1) who initially had severe congestive heart failure with albuminuria and high nonprotein nitrogen. He had been on Neohydrin, two tablets daily for nine months. The congestive symptoms were controlled and the renal abnormalities disappeared. He suddenly died of acute right heart failure. Postmortem examination showed normal kidneys except for passive congestion. There was no tubular damage.

Albuminuria is not a rare occurrence in congestive heart failure. However, histologic study of the kidneys in these patients revealed normal structure, or minor lesions thought not responsible for the proteinuria.

Findings in the present study indicate that albuminuria and high nonprotein nitrogen are not necessarily a contraindication to this oral organomercurial diuretic.

Twenty-three patients, more than half of whom were over age 60, who were in chronic congestive heart failure, were treated with Neohydrin for a period of time varying from eight to 65 months, with satisfactory results.

Patients without primary renal disease, but with albuminuria and high non-protein nitrogen due to congestive circulatory changes, can be adequately and safely treated with Neohydrin for long periods of time.

Cardiac Pain from Oesophageal Lesion

BOURNE (*Lancet*, **1** : 892, 1956) in reporting on two patients having cardiac pain of oesophageal origin writes :

The first of the two patients presented was a 54-year-old man, who had a sudden attack of pain in the chest at the level of the upper part of the sternum, whence it radiated down to the left arm and up into the neck.

Later in the day he had another similar attack, and two days later he had several more. All were relieved by morphine. Although on his first admission the diagnosis was of coronary thrombosis, suspicion was aroused during the second admission by the normal electrocardiogram and by the normal size and shape of the heart. Because it had been noticed that from time to time he swallowed air, the oesophagus became suspect, and on radiography a diverticulum of its middle third was found. The second patient, a 67-year-old man, had symptoms of angina of effort. The pain in the chest radiated to both sides, but not to the arms or to the neck. It was induced by hurrying and by climbing hills or stairs, and it was not associated with shortness of breath. It lasted two or three minutes. The electrocardiogram, after considerable exercise by the patient, remained normal in the standard leads. The oesophagus showed a sliding hiatus hernia on roentgenography. These two histories are put on record to draw attention to the necessity for a full investigation of the oesophagus when pain that clinically appears attributable to coronary disease is not associated with any other abnormality, whether clinical, electrocardiographic, or radiological. The oesophageal condition should be treated by advice about the proper mastication of food, by a low-residue diet, by use of aluminium hydroxide or bismuth before meals and belladonna, and by having the head of the bed raised on 9-in. blocks. The complete disappearance of symptoms after such treatment would argue for an oesophageal rather than a coronary origin.

Resotren in Amoebiasis

PFANNEMUELLER (*Lancet*, **1** : 934, 1956) writes that 42 cases of amoebiasis, including 31 of hepatitis and 6 of liver abscess, were treated with resotren.

All forms of amoebiasis responded to resotren. Clinical cure was achieved in all the cases, and at the end of the treatment the stools were negative for both cysts and vegetative forms in 40 of the 42 cases.

In cases of severe liver abscess chloroquine was given in addition to resotren on the first two or three days.

Treatment with broad-spectrum antibiotics does not appear suitable : in 14 of the present cases amoebic hepatitis had developed after treatment elsewhere with such antibiotics.

Usually a course of resotren consisted of 40 tablets given as follows :

1st day ...	... 3×2	tablets = 6
2nd-5th day	... 4×1	tablet = 16
6th-10th day	... 3×1	tablet = 15
11th-12th day	... 3×0·5	tablet = 3
12 days ...	... ...	40 tablets

Treponema Pallidum Immobilization Test

LEDBETTER (*J. A. M. A.*, **160** : 1392, 1956) writes that the treponema pallidum immobilization test, although complicated, has proved to be an invaluable aid to the clinician. As one investigator so aptly stated, "the difficulty or ease of a procedure is secondary, the primary being its use to the clinician". By the use of this test, unnecessary treatment is avoided. The test is of little value as a criterion of cure. It has its greatest value as a verification test and is especially important in the diagnosis of latent syphilis. The test is of great importance to the clinician in enabling him to distinguish between biological false-positive reactions and true-positive (syphilitic) reactions in standard serologic tests. With the advent of the T. pallidum immobilization test it is now possible to remove social stigma, thus clearing the patient's record. The test eliminates not only false-positive serologic reactions but false-negative ones as well.

Since the T. pallidum immobilization test has proved to be an aid to the clinician, additional laboratories for the performance of this test should be established in order to make it more generally available to the practising physician.

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Vitamin B_2	0.5 mg.	2 mg.	1 mg.
Vitamin B_6	2 mg.	1 mg.	0.5 mg.
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CURRENT TOPIC

MEDICAL COUNCIL OF INDIA

Presidential Address by Dr. C. S. Patel at the Forty-sixth Session of the Council on the 20th October, 1956 :

Recognition of Indian Medical Qualifications by the General Medical Council of United Kingdom

You will be glad to know that the General Medical Council of the United Kingdom have accorded recognition to the MBBS degree granted by the Universities of Nagpur, Rajputana, Baroda and to MMF (West Bengal), with effect from the dates, which were previously specified against each. That Council have, however, not agreed to accord retrospective recognition, which was subsequently asked for by us as a result of the removal by the Central Govt. of the dates of recognition in the Notifications issued by them. The Government of India have been informed of the reply received from the General Medical Council in this behalf. That Council has also not agreed to advance the date of recognition relating to the qualifications of Andhra, Calcutta and Patna Universities in regard to the periods which were not covered by their recognition. This question has been the subject of prolonged correspondence between the two Councils and it would have been appropriate if the General Medical Council could have seen their way to recognise these qualifications for these periods as well. Your Executive Committee has under consideration the question of recognition by the General Medical Council of the qualifications of MCPS (Bombay), MBBS (Osmania) and LMS (Punjab). The observations of the Mysore University on our inspection report are awaited. On receipt of them, the case will also be considered in this context.

Post-examination Training

As you are aware, we have prescribed post-examination training in our revised recommendations on Professional Education. These recommendations are in the process of implementation in the various medical institutions and under the direction of your Executive Committee, information is being collected regarding the hospitals attached to the teaching and non-teaching institutions available for the training. The possibility of utilising military hospitals for the purpose is also being explored.

Medical Registration in the United Kingdom

As I reported to you at the last Session, under the Medical Act, 1950, the General Medical Council requires internship for a specified period before admission to registration in the United Kingdom. Information is being collected in order to draw up a list of Indian hospitals for inclusion in the list of recognised hospitals which may be drawn up by the General Medical Council for the purpose.

New Medical Colleges

At the last Session, I had referred to the rapid increase in the number of admissions in Medical Colleges and had pointed out the danger involved, in the absence of provision of corresponding additional facilities in respect of staff, accommodation and equipment. It is gratifying to note that many Medical Colleges have come into being and still more are in the blue-print stage and several more have also been envisaged in the Second Five Year Plan, but I am one of those, who believe that the essential requirement of medical science is quality and not quantity. Human lives can not be entrusted to the hands of half-baked medical men. It would, therefore, be disastrous if we let loose on the public sub-standard doctors masquerading as qualified and licensed Physicians and Surgeons. As far as we are aware, there are now 45 Medical Institutions in the country including the newly established Indian Institute of Medical Sciences. There may be many more colleges already started or in the offing in different States, about which we have no information. Our difficulty is that the State Governments as well as the Universities do not inform us much less consult with us in the matter of starting Medical Colleges. Instances are not lacking where Medical Colleges have been established, students admitted and even clinical courses started without asking for our inspection or guidance. Even private organisations have set up medical institutions in certain States without ensuring funds and facilities and the requisite standard essential for a Medical College. Although the Government of India have through the press sounded a note of warning against such fantastic and wasteful ventures, yet the Central and local Governments and the Universities cannot be absolved of their responsibility if ill-equipped, ill-staffed and ill-managed institutions are affiliated or allowed to flourish. Unfortunately, the Medical Council of India has no mandatory or otherwise effective powers in such matters and under the existing law even the recommendations of the Council on professional education and examinations can conveniently be ignored by the authorities concerned. I am very much concerned with this present trend and would appeal to all, who are interested in medical education not to give any quarter to elements and factors which vitiate and undermine the soundness of medical education and the work which this Council has, inspite of innumerable difficulties, been trying to do. This Council has all along kept in view the motto given to it by the late Sir Fazal-e-Hussain the then Member-in-charge of Health, while inaugurating the First meeting of the Council that 'Efficiency at home brings honour abroad'.

Reciprocity with other Countries

Your Executive Committee has under consideration the question of establishing reciprocity of recognition of medical qualifications between India and other countries. At the last session, I had stated the position with regard to the stand which this Council has taken in this matter. We are anxious, and we do wish to have reciprocal relations with foreign countries in

the matter of medical education and practice, but the principle which we have decided upon for such a scheme is of direct reciprocity. We do not favour reciprocity involving dictation or assessment of standards of our qualifications as also of the reciprocating countries by any third party. Our position is very clear in this matter and we would consider favourably any proposal coming from any country embracing this fundamental requirement whereby Indian qualifications recognised by the Medical Council of India should be recognised in the reciprocating country, while the recognised qualifications granted in that country would *ipso facto* be given similar recognition in India. Your Executive Committee, therefore, examines all proposals for reciprocity from that point of view. I hope and trust that our stand will be appreciated in its proper perspective and that there would be no insistence on indirect or conditional reciprocity.

Concessions to Licentiates

In order to afford facilities to licentiates to obtain higher qualifications and knowledge in medicine, the Council has from time to time allowed certain concessions in this behalf. It was last decided that Licentiates could avail themselves of those concessions upto April, 1956. The Government of India has, however, been pressing for the extension of the concessions for a further period of five years. The matter was carefully considered by your Executive Committee in all its aspects and they came to the conclusion that especially on account of the abolition of the Lake Medical College, Calcutta, which exclusively catered for Condensed Course studies, it has resulted in extra burden on the different colleges where facilities for training of students have been found just sufficient for regular students. As I have already pointed out, the number of admissions of regular students in the various institutions of late has been rapidly increasing beyond proportion. The continuance of the condensed course would obviously affect the training of the already over-crowded regular students. In view of these considerations, the Executive Committee informed the Government of India that they should themselves make provision for necessary additional facilities in the different institutions and it would not be possible for the institutions to continue the condensed course beyond April, 1956, as such action was likely to lead to deterioration of the standard of medical training. We have been informed by the Government of India that they have circulated to the State Governments for information and necessary action, the resolution passed by the Central Council of Health at its meeting held in February, 1956, recommending the continuance of the condensed course for a period of at least five years more. Under my direction the Government of India were informed that the Council was anxious that the standard of medical education in the country should not be lowered. In view of the fact that they have already enjoined on the State Governments to continue the condensed course, it was enquired from the Government of India whether they have ensured that proper facilities have been provided in the various medical colleges for the continuance of this course. In reply the Government of India have informed us that the Universities, State Governments and the Institutions concerned have to ensure that proper facilities are provided in the medical colleges for the purpose. I am still at a loss to understand as to where the responsibility for ensuring the availability of the requisite facilities should lie. We have no objection to the continuance of this course, but we are legitimately anxious that additional and adequate facilities are provided in the institutions concerned and that the standard of medical education is not allowed to deteriorate or the training of the regular students adversely affected.

Planning Committee

The Executive Committee had under consideration further action on your resolution dated 29th October, 1955, regarding the formation of the Planning Committee. In pursuance of their decision the Planning Commission was requested that all matters relating to planning scehmes and improvements etc., for medical education should be sent to us for opinion. In reply the Commission have intimated that they would be glad to consult the Council whenever schemes relating to medical education were considered.

Post-Graduate Medical Education Committee

At the last session I had reported to you about the constitution of the Post-Graduate Medical Education Committee which the Government of India have decided to form under the Medical Council of India, in place of the existing All-India Council of Post-Graduate Medical Education. As desired by the Central Government, the members of the Council were requested to intimate their post-graduate medical qualifications and experience of teaching post-graduate medical students and examining them. On receipt of the necessary information, the names of those members who were eligible for appointment on the proposed Post-Graduate Medical Education Committee, have been communicated to the Union Ministry of Health. On receipt of the names of those members who might be nominated by the Government, the remaining would be considered for election by the Council on the Committee.

Public Health Qualifications Inclusion in Schedule

Since the Government of India have ruled that the Public Health qualifications cannot be included in the Schedule, unless the Act is amended, further inspections of these qualifications have been dropped.

Registration of Non-Scheduled Foreign Qualifications

Under our Act Indian Medical Qualifications are included in the first Schedule after thorough scrutiny by the Council of the necessary data and through inspections and visitations of facilities for teaching and standard of examinations in the light of the requirements laid down by the Council. Foreign qualifications are included in the Second Schedule on the basis

of reciprocity. Under special resolutions non-scheduled foreign qualifications are considered on merits for registration purposes. This provision has been made in order to facilitate the registration of foreigners and Indians possessing non-scheduled foreign qualifications in the interest of medical education and medical relief in the country. Under these special resolutions, we have so far permitted the registration of 134 foreigners and 28 Indians.

Change of Medium of Instruction

After the partition of India there has been considerable agitation for changing the medium of instruction into the national or regional language in place of English. On receipt of a reference from the Gujarat University asking for our views about the change-over of the medium in the medical faculty of that University in Gujarati from June, 1957, the opinions of other Universities were obtained. The replies received in this connection are being placed before you. This is a very important matter which needs careful consideration. I entirely agree with my distinguished predecessor in office, Dr. A. S. Erulkar, who, in his presidential address on 23rd October, 1948, declared before this Council that this suggestion was premature and that, adopted in the near future, it would set back the progress of modern medicine in India. As far as the question of medium of instruction in the scientific and technical fields is concerned, the place of English cannot be ignored for many years to come. In the first place, as far as I am aware, we have not yet been able to translate even rudimentary technical terms and literature into Hindi let alone any regional language. The adoption of any language other than English, at the present moment, for instruction in Medical Science, is fraught with serious dangers and difficulties which may not be perceptible to sentimentalists. I am happy to note from the press reports that our Prime Minister has unequivocally opposed the move for replacing English at the Higher Secondary and University stage especially in relation to scientific and technical education. I hope that his sane advice would not fall on deaf ears and that while deciding this question the Universities would keep in view the larger national interests.

Code of Medical Ethics

At present, we have no central registration and, therefore, we have no disciplinary and ethical powers. With a view to assisting the State Medical Councils in the matter of formulating a uniform standard of medical ethics, we have drawn up a Code of Medical Ethics which has been forwarded to the State Medical Councils for their guidance. Many important problems relating to penal and ethical matters crop up frequently and our views are sought by the State Medical Councils on certain important issues. We have, therefore, formed a Penal and Ethical Committee with which we have associated the Secretary in the Ministry of Law, Government of India, and also the eminent lawyer, Sir D. N. Mitra. Such references are forwarded to this Committee and their opinions are considered by the Executive Committee and ultimately placed before the Council for final decision. So far, we have expressed our opinion on six important matters and two fresh references with the recommendation of the Executive Committee are being placed before you. In the new set-up, I hope, this Committee would grow on much broader lines to deal with penal and ethical cases and hear appeals in such matters in the same manner as a similar Committee functions under the General Medical Council of United Kingdom.

Special Course in Pre-medical Education

With the abolition of the intermediate course and the creation of a three-year degree course in certain Universities, problem had arisen as to the provision of pre-medical education and qualifying examination for admission into Medical Colleges. In 1954, we had appointed a Sub-Committee to report in the matter and forward a draft of the required course. Under the direction of your Executive Committee, the report of the Sub-Committee was forwarded to all the Universities for their views. We have received the views of some Universities and the remaining have been periodically reminded. On receipt of all the replies, the matter will be placed before you for final decision.

All-India Institute of Medical Science

My attention has recently been drawn to the All-India Institute of Medical Sciences Act, 1956, which received the assent of the President on the 2nd June, 1956.

So far as I am aware, the Medical Council of India was not consulted before this piece of legislation was introduced in the Parliament, although some of the provisions actually cut across the powers conferred on this Council in regard to the maintenance of proper standards of medical education—Under-graduate as well as Post-graduate—by the Indian Medical Council Act, 1933. In such cases, convention and common courtesy demand that the Statutory body affected should be consulted before legislation is introduced. The Health Ministry, however, for reasons best known to themselves have failed to observe this common courtesy.

In Section 13 of the All-India Institute of Medical Sciences Act, 1956, the objects of the Institute have been defined as under :

(*a*) To develop patterns of teaching in Under-graduate and Post-graduate medical education in all its branches, so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India.

(*b*) To bring together in one place educational facilities of the highest order for the training of personnel in all important branches of health activity; and

(*c*) To attain self-sufficiency in Post-graduate medical education.

Section 14(*h*) authorises the Institute to hold examinations and grant degrees and diplomas and other academic distinctions and titles in Under-graduate and Post-graduate medical education. Section 24 states that notwithstanding anything contained in any other law for the time being in force, the Institute shall have

power to grant medical degrees, diplomas and other academic distinctions and titles under the Act, and finally Section 23 provides that, notwithstanding anything contained in the Indian Medical Council Act, 1933, the medical degrees and diplomas granted by the Institute under the Act *shall* be recognised medical qualifications for the purpose of the Act and shall be deemed to be included in the first schedule to the Act.

It is clear from the provisions of the All-India Institute of Medical Sciences Act cited above that the Institute will be a sort of super body and will not be subject to the control of the Medical Council of India, which, until the passing of Act No. 35 of 1956, was the only body competent to maintain standards of Undergraduate and Post-graduate medical education in India, and to send its inspectors and visitors to the examinations for the various degrees and diplomas in medicine granted by the several Universities in India.

So far as I can see, as Act No. 35 of 1956 stands at present, the All-India Institute of Medical Sciences will be a "law unto itself" and will not be subject to any control from the Council in regard to the facilities provided in the Institute for under-graduate and Post-graduate medical teaching and the sufficiency or otherwise of the courses prescribed by it for the degrees or diplomas proposed to be given by it.

The by-passing of the Medical Council of India in a matter of this sort will result in confusion and reduce the powers of my Council, which consists of medical teachers and administrators of the highest renown in India to a nullity, and clashes are bound to occur sooner or later as to the standards of medical education to be maintained. As you are aware, duality of control is a thing which every administrator wishes to avoid, but the framers of this Act have taken an exactly contrary course.

To make matters worse, if you refer to Section 4 of the Act, you will notice that except for 3 members of Parliament who are to be elected from amongst themselves by the members of the House of the People and the Council of States, all the members of the institute are to be either ex-officio or nominated by the Central Government. This is something unheard of in these days of democracy. I am afraid the Ministry of Health do not appear to have changed their mode of outlook even after the attainment of independence by India, and they still toy with the bureaucratic ideals of the British regime and try to concentrate all power in their own hands.

Indian Medical Council Bill, 1956

This brings me to the subject of the Indian Medical Council Bill, 1956, which has been recently passed by the Rajya Sabha and is likely to come up before the Loka Sabha in its next session. The original draft of this bill was prepared by my Council nearly 4 years ago and after spending so much time in considering its provisions, the Health Ministry rushed it through the session of the Rajya Sabha which has just concluded, a bill which is hardly recognizable from the original draft submitted by us. The final draft was not shown to us before it was actually introduced in the Rajya Sabha, although in a matter like this, in which the Council is vitally interested, it was perhaps only reasonable to expect that it should have been consulted at least before the bill in its final form was introduced in the House of Parliament.

The Indian Medical Council Act, 1933, was passed by the British Government more than 2 decades ago and contained several provisions which gave the ultimate authority in most matters to the Central Government in consonance with the bureaucratic ideals then prevalent. My Council and I sincerely expected that, with the dawn of independence and the establishment of democratic ideals, the new bill to amend the Act would be more democratic and would at least confer on the Council the powers possessed by the corresponding body in the U.K., namely, the General Medical Council of Great Britain, but events have belied our hopes. The bill not only does not propose to confer any additional powers on the Council, but some of its provisions are aimed at increasing the powers of the Central Government.

To give you just one instance, when the Bombay Medical Act, 1938, was passed by the Bombay State Legislature, during the regime of the first Congress Ministry, it contained 2 very important provisions, namely—

(1) That no person other than (*a*) a practitioner registered under Part 2 of that Act or (*b*) a medical practitioner registered under the Bombay Medical Act, 1912 or (*c*) a person whose name is entered in the list mentioned in Section 18 shall practise or hold himself out, whether directly or by implication, as practising for personal gain any system of medicine, surgery or midwifery, and

(2) That the Provincial Government may by notification in the official gazette direct that the provisions mentioned in (1) above shall not apply to any class of person or in any specified area.

The sole object of provision (2) above was to ensure that the provision referred to in (1) above should not come in the way of missionary doctors and others, who work in their respective hospitals in a spirit of self-sacrifice without doing any private practice from which they personally benefited.

Shortly after the Congress Ministry in Bombay State went out of office towards the end of 1938, the advisers' regime decided to modify the provisions of the Act, so as to vest in Government the power to waive the provisions in regard to practice by unregistered medical practitioners in the case of *individuals*. This meant the exercise of Government patronage and when the amending bill was published, I understand that Dr. Gilder, the former Health Minister, who was then in prison, protested strongly against the proposed amendment and said that when in office as the Health Minister, he had deliberately decided that any exemptions granted under the proviso to Section 32 of the Act should relate only to a class of persons and not to individuals. His idea was that, if once Government took power to exempt individuals, principles would be lost sight of and that individuals belonging to foreign

countries where fully qualified Indian Doctors were normally not allowed to practise might be allowed to practise in Bombay State. He considered it important that India should maintain her prestige in this respect.

Section 14 of the Indian Medical Council Bill, 1956, as passed by the Rajya Sabha provides that the Central Government may by notification in the official Gazette direct that medical qualifications granted by Medical Insitutions in any State or country outside India in respect of which a scheme of reciprocity for the recognition of medical qualifications is not in force shall be recognised medical qualifications for the purpose of this Act, or shall be so only when granted after a specified date. The proviso to this Section makes it clear that medical practice by the doctors possessing such qualifications shall be limited to the institution, to which they are attached for the time being for purpose of teaching, research or charitable work and for so long as they continue to do such work. The words "and such person shall not practise medicine for personal gain" which occurred in the bill as introduced in the Rajya Sabha have since been deleted.

In the first place, I think that it is wrong in principle for Government to recognize medical qualifications given by countries which have no scheme of reciprocity with India and where Indian medical qualifications are not recognised. Such a positive provision takes something away from the prestige of India in the medical world. I am strongly of the opinion that the Bombay precedent could be followed with advantage and that exemptions from the provisions of Section 14 could be granted to specified classes of persons or in specified areas without recognizing the qualifications themselves.

I do not also see why the words "and such persons shall not practise medicine for personal gain" have been deleted in the Rajya Sabha. When similar question arose in connection with the Dental Council of India, the Hon'ble Dr. B. C. Roy, who was president of the Medical Council of India at that time and whose advice was sought by the All-India Dental Association, suggested the following formula which still remains unchanged to-day :

(1) All foreigners practising at the time of the Act would be allowed to continue to practice provided they took up Indian domicile.

(2) All future entrants will be on a basis of reciprocity established by the Dental Council.

(3) Otherwise, they have to pass an examination, as Indian nationals do, where no reciprocity exists.

Last year, the Central Government suggested an amendment to those provisions by which foreign dentists could be temporarily registered for a period of 5 years by the *President of the Dental Council*, provided one had reputable qualifications and was employed as a teacher in any of the dental institutions. It was made clear that such a person should not practise for personal gain and if he did so, his name was liable to be removed from the dentists' register, with the result that he could not practise as a dentist. I certainly do not see why the Central Government should take a stepmotherly attitude in the case of the Indian Medical Council and keep to themselves the powers which, in the case of an exactly analogous body, they have conferred on the President of the Indian Dental Council. I think that it is only fair that clause 14 of the Indian Medical Council Bill, 1956, should be amended on the lines of the Bombay Enactment. There is no need to *register* teachers employed under the Colombo Plan or teachers in missionary hospitals nor to recognize the qualifications obtained by them. It is sufficient if as a class they are exempted from the provisions, which restrict medical practice only to registered medical practitioners.

Then again, I do not see why fresh elections should be held and nominations made until all rules and regulations under the new Act have been framed. The result of the proviso to clause 3 of the bill will be that, if the Council is reconstituted as proposed in that clause, it will be packed with members nominated by the Central Government and it will set at naught democratic principles.

Clause 3(*a*) of the bill provides for the nomination by the Central Government of one member from each State. While passing the bill in the Rajya Sabha, the words "after consulting the State Government" seem to have been added to the clause. The result is that in nominating representatives of the States, the Central Government have to consult the State concerned, but need not necessarily follow its advice. As under clause (*c*) of the Bill, 6 members are in any case to be nominated by the Central Government, I see no reason whatever why the single member to represent each State should be nominated by the Central Government. I would suggest that the nomination should be made by the State Government as the member is supposed to represent the State and put its views before the Council. I see no ostensible reason for nomination of a State representative by the Central Government. In any case, the proposal to concentrate in the hands of the Central Government the power to nominate such a large number of members is essentially undemocratic.

Clause 3(*d*) provides that 7 members shall be elected to the Council from amongst themselves by persons enrolled in any of the State Medical Registers, who possess medical qualifications included in Part I of the third schedule. A reference to this part will show that the qualifications mentioned are all licentiate qualifications which are fast disappearing, as in most of the States, medical schools teaching licentiate courses have been replaced by medical colleges. The Council has all along been aiming to have one uniform standard of medical education, as far as the basic qualification is concerned and that is the M.B.B.S. standard of a recognized Indian University. Practically, all the States in India have accepted this principle and the licentiate qualification will, therefore, disappear within the next few years. It was in these circumstances that my Council had suggested that representation of licentiates on the Council should cease after 10 years. It had also recommended that there should not be more than one licentiate member from any one State, but the Central Government seem to have ignored the advice of the Council for reasons best known to themselves, and not only have they made the provision of representation for licentiates on the Council permanent, but as the bill

stands at present, all the 7 members to be elected by the licentiates may come from a single State; thus ignoring the due claims of licentiates from other States for representation on the Council. I appeal to the Government of India, in the interest of medical education, to see that the recommendations made by our Council after full consideration of the issues involved are given effect to by a suitable amendment. It is needless for me to mention in this connection that licentiate qualifications are not recognized by foreign countries, as they consider that the standard of the examinations for such qualifications is far below that which they consider necessary to enable a person to practise satisfactorily as a medical practitioner.

I refer again to the provisions of Section 24(2), under which, where the name of any person has been removed from the State Medical Register on any ground other than that he is not possessed of the requisite medical qualifications or where any application made by the said person for registration of his name to the State Medical Register has been rejected, he may appeal to the Central Government, whose decision, which shall be given after consulting the Council, shall be binding on the State Government and on the authorities concerned with the preparation of the State Medical Register. It has been represented to the Government that appeals from the State Medical Council in such matters should lie to the Medical Council of India and that if the person concerned is still dissatisfied, he can appeal to the High Court whose decision shall be final. In the U.K., the General Medical Council decides all such matters, and appeals from that Council lie only to the Privy Council. This is as it should be, as in a case which so vitally affects the interest of a medical practitioner including the exercise by him of his profession as a means of living, the final decision should be that of a judicial Court and not lie with the Executive Officials of the Central Government.

NOTES AND NEWS

World Medical Association Elects Officers

At its 10th General Assembly held in Havana, Cuba, October 9—15, 1956, The World Medical Association elected the following officers :

PRESIDENT (1956-1957)—Dr. Jose A. Bustamante—*Cuba.*

PRESIDENT-ELECT (1956-1957)—Dr. Ahmet Rasim Onat—*Turkey.*

TREASURER (1956-1959)—Dr. Ernst Fromm—*Germany*

MEMBERS OF COUNCIL—1956-1959—

Dr. Gunnar Gundersen—*U.S.A.*

Dr. Marcel Poumailloux—*France.*

Dr. S. C. Sen—*India.*

Dr. Lorenzo Garcia-Tornel—*Spain.*

The Council of The World Medical Association elected the following officers for the coming year :

CHAIRMAN OF COUNCIL—Dr. Lorenzo Garcia-Tornel —*Spain.*

VICE-CHAIRMAN OF COUNCIL—Dr. L. R. Mallen—*Australia.*

The Officers of Committees for 1956—1957 include :

EDITORIAL BOARD—Dr. Austin Smith (*U.S.A.*) Chairman.

INTERNATIONAL LIAISON—Dr. Jean Maystre (*Switzerland*) Chairman.

MEDICAL EDUCATION—Sir Lionel Whitby (*U.K.*) Chairman.

MEDICAL ETHICS—Dr. P. Glorieux (*Belgium*) Chairman.

MISCELLANEOUS BUSINESS—Dr.Otto Rasmussen (*Denmark*) Chairman.

PLANNING AND FINANCE—Dr. T. C. Routley (*Canada*) Chairman.

SOCIAL SECURITY—Dr. Dag Knutson (*Sweden*), Chairman; Dr. Rolf Schloegell (*Germany*) Secretary.

The Council appointed the following :

REGIONAL SECRETARIES—

Asia—Dr. S. C. Sen—*India.*

Australasia—Dr. John Hunter—*Australia.*

Europe—Dr. Paul Cibrie—*France.*

Latin America—Dr. Hector Rodriguez H.—*Chile.*

WORLD MEDICAL JOURNAL OFFICIALS—

Dr. Austin Smith (*U.S.A.*) Executive Editor.

Dr. Stanley S. B. Gilder (*Canada*) Associate Editor.

Dr. Louis H. Bauer (*U.S.A.*) Business Manager.

LIAISON OFFICERS—

Dr. Jean Maystre—*Switzerland.*

Dr. P. Glorieux—*Belgium.*

Dr. V. A. Fenger—*Denmark.*

NEW MEMBER ASSOCIATION—The New Zealand Branch of the British Medical Association was elected to membership in The World Medical Association at the 10th General Assembly in Havana, Cuba, October 9—15, 1956. This association was organized in 1896 and has approximately 810 members.

RESOLUTIONS ADOPTED—The following are among numerous resolutions adopted by the 10th General Assembly of The World Medical Association :

International Medical Law—"It is the primary function of the medical doctors of the world to formulate any code of International Medical Law and The World Medical Association is the only organization that can speak for the doctors of the world."

Traffic Accidents—"Whereas : The death and maiming of humanity throughout the world is increasing rapidly each year; and

"Whereas : It is the duty and responsibility of the medical profession in every country of the world to assist in the preservation and maintenance of human life ;

"Therefore, be it resolved : That The World Medical Association recommend to its member associations that they cooperate with other agencies and authorities within their country to whatever degree is possible and necessary in a concentrated endeavour to save and preserve human life."

International Congress for Social Medicine

The 2nd International Congress for Social Medicine will be held in Vienna from May 31 to June 2, 1957.

The theme of the Congress is "University and Public Health". Various questions concerning the above subject will be discussed at this meeting by world renowned experts. Details may be had from Prof. Dr. T. Antoine, Spitalgasse 23, Vienna 9, Austria.

UNICEF'S Child Health Programmes

The Executive Board UNICEF has approved the spending of $2,747,000 on child health programmes in Asia. The money is for projects in 14 countries and territories stretching from Afghanistan to Japan. India's mass programme of B.C.G. vaccination against tuberculosis is to get $204,000. The announcement described this as "the largest vaccination campaign the world has seen" and said the project has a target of 170 million tests and about 50 million vaccinations. The allocations include—$52,000 for maternal and child health services in Afghanistan; $11,000 for handicapped children and $12,700 for fellowship for health personnel in India; $57,000 for handicapped children, $50,000 for milk feeding and $28,000 for emergency feeding of Hokkaido women and child victims of severe crop failure in Japan; and $99,000 for maternal and child health in Pakistan.

Role of Isotopes

Radioactive isotopes are playing an increasingly important role in medicine, particularly in the treatment of certain forms of cancer. Their action is comparable to that of x-rays and radium, but they have certain practical advantages in so far as the radiations which they produce can be focussed more easily on the malignant growth than is the case with either x-rays or radium.

It was known that scientists in U.K. as well as in the U.S.A. were working on a method of extracting radioactive caesium from atomic waste products and preparing it in a form suitable for use in medicine.

The radiotherapy department of the Royal Marsden Hospital, in conjunction with the physics department of the hospital, has been the pioneer in Britain of this development in medical research.

U. N. Anniversary in Delhi

The 11th anniversary of the founding of the United Nations was celebrated in Delhi on 28-10-56 at a function organised by the U. N. Association of Delhi Pradesh Congress Committee. Among the speakers were the US Charge d'Affaires, the High Commissioner of Ceylon, the Chief Minister of Delhi State and the speaker of the Delhi Vidhan Sabha. Mr. Frederic P. Bartlett, US Charge d'Affaires, said that the membership of the U.N. had risen from 50 to 76. The U.N. was still man's best hope for peace. Detailing the work of UNESCO, he commended India's contribution in attempting to fight ignorance. Sir Edwin Wijeyeratne, High Commissioner for Ceylon, pointed out the difficulties facing the U.N.

Malnutrition Among Primary School Children

About 25 per cent of the primary school children in the State suffered from malnutrition, according to a sample survey conducted by the Madras Government.

Announcing this in the Legislative Council (Upper House) on behalf of the Health Minister, Mr. M. A. Manickavelu, Revenue Minister, said that free mid-day meals, milk and vitamin supplements were given on a limited scale to school children. The Government had under consideration a scheme for medical inspection of all children in secondary schools in 15 selected urban areas. The scheme would be taken up under the second Five-Year Plan.

Child Health Scholarships

Two Glaxo scholarships have been offered for post-graduate studies in child health at the newly-established Institute of Child Health in Calcutta. The Institute is affiliated to Calcutta University, where members of the medical and nursing profession receive specialised training in the care of children.

CORRESPONDENCE

The Editor is not responsible for the views expressed by correspondents

Use of Unfermented *Neera*

Sir,—*Neera*, a fluid obtained by tapping the palm tree is a popular drink. It is also extensively used for preparation of liquors by fermentation. With the scheme of prohibition unfermented *neera* as a beverage etc. has become more popular. In this background the biochemical properties and medical use of *neera* are of considerable interest. *Neera*, besides being pleasant in taste, has appreciable food value. Its carbohydrate content is high and its iron, vitamin B_1, nicotinic acid, riboflavin and vitamin C content compares very favourably with that of sweet lime juice and milk.

We have studied the sodium-potassium contents of 11 market samples of *neera* on the flame photometer. The average values were 1·2 mEq/litre for sodium and 38 mEq/litre for potassium (S.D. 3·14). Its potassium content is about half that of cocoanut water.

In rats *neera* exhibited diuretic property. When it was tried out in seven human volunteers, during three hours after taking *neera* the sodium excretion was higher than after ingestion of equivalent amount of water. However, the difference was not statistically significant. Two patients of congestive cardiac failure were given 800 c.c. of *neera*; though one of them showed encouraging diuresis, both complained of headache and became rowdy and restless due to fermentative changes in the ingested *neera*.

Neera can be used as a palatable source of potassium during convalescence after operations or dysentery diseases and other diseases where there is negative potassium balance. It can also be used to supplement the diet of patients suffering from congestive cardiac failure where sodium restrictions and potassium intake are aimed at. Its high iron and vitamin values are additional merits. We are etc.

C. S. I. R. Unit, Department of Pharmacology, Seth G. S. Medical College, Bombay.

N. K. Bhide, J. C. Trivedi.

REVIEW

Anesthesia for Obstetrics—Labor-Delivery—Infant Care —By Robert A. Hingson and Louis M. Hellman. Published 1956 by J. B. Lippincott Company, Philadelphia and Montreal. Available from Pitman Medical, 45 New Oxford Street, London, W. 1. Boardbound, 10" × 7", xvi/344 pages with 26 coloured plates and 122 figures. Price £5-0-0.

The human society, as also the physical and mental make-up of the parturient woman today are vastly different from those of early days in human history indicated by the words "in pain shalt thou bear fruit". The thought and talk of relief from pain during childbirth was at one time considered to be not only outrageous, but even striking at the very root of religious teachings and belief. From rather simple technical skills the art and science of relief of pain in childbirth have now developed into an increasingly complex speciality requiring constant study, observation and undivided attention to bring about still further improvements. This is a very timely book, produced by collaboration of two well-known experts in anaesthesia and obstetrics respectively. This book describes in a thorough but concise manner the present day applications of anaesthesia, amnesia and analgesia as applied to problems in obstetrics—not only keeping the mother in view, but the baby as well. The subject matter has been dealt with very ably. The colour plates deserve praise; the paper, printing, get-up and binding are good.

OBITUARY

Dr. J. N. Ghosh

Dr. J. N. Ghosh passed away following a sudden attack of coronary thrombosis on 21 October, 1956 at his Calcutta residence. He was born in 1892 at Baharu, 24-Parganas, West Bengal. He was a student of the Campbell Medical School and had a brilliant career. After passing the L.M.F. examination, he entered service in the E. B. Ry. as a Sub-Assistant Surgeon. Being a man of ambition he did not rest content with his status and soon after resigned with a determination to become a graduate. He joined the Medical College, Calcutta and graduated in 1918. In 1924 he went to Ireland for L.M. and on his way home made a continental tour.

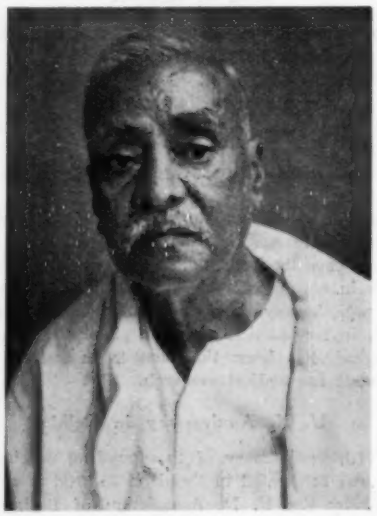
Dr. J. N. Ghosh, M.B., L.M.

Dr. Ghosh was the chief medical officer of the Allahabad Bank Ltd., Calcutta. He had also a good private practice. He was one of the oldest members of the Calcutta Branch of the Indian Medical Association.

May his soul rest in peace.

Dr. Surendra Nath Sengupta

Sri Surendranath Sengupta was born in 1878. He qualified as an L.M.S. from the Medical College, Calcutta, in 1906, and joined the medical service in the same year as the Medical Deputy Superintendent of Jails at Port Blair. Later he became Civil Surgeon and served in various places of Bihar. Dr. Sengupta was a man of strong principle. His uncompromising honesty and sturdy independent spirit brought him into conflict with the authorities and he resigned his post. Ultimately he started independent practice in Midnapur town and became a legendary figure among the medical profession of Midnapur and Bankura. For very many years he was president of I.M.A. Midnapur Branch. He died on 19th September 1956 at the age of 78. His eldest son Dr. Ushanath Sengupta is the present president of the I.M.A. Midnapur Branch.



Dr. S. N. Sengupta, L.M.S.

May his soul rest in peace.

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Full details from: **DUMEX PRIVATE LIMITED**
Wavell House, Ballard Estate, Bombay-1

SUPPLEMENT

Journal of the Indian Medical Association

VOL. 27, No. 11 CALCUTTA DECEMBER 1, 1956

PROGRAMME FOR THE ANNUAL MEETINGS OF THE I.M.A. AND XXXIII ALL-INDIA MEDICAL CONFERENCE, TRIVANDRUM, 1956

Saturday, 22nd Dec. and Sunday, 23rd Dec. 1956

I.M.A. WORKING COMMITTEE MEETING :

Venue—Medical College, Lecture Hall in the ground floor (Biochemistry)

Programme

Coffee/Tea	6-00 to 6-30
Breakfast	8-00 to 9-00
Meeting	9-00 to 12-30
Lunch	13-00 to 14-00
Meeting	14-30 to 16-30
Tea	16-30
Meeting	17-00 to 20-00
Dinner	20-00

There will be a group photo at 16-30 hrs.—just before tea—on the 2nd day of the Working Committee Meeting.

Monday, 24th Dec. and Tuesday, 25th Dec. 1956

I.M.A. CENTRAL COUNCIL ANNUAL MEETING :

Venue—College Auditorium
(Mike arrangements to be made)

Programme

Coffee/Tea	6-00 to 6-30
Breakfast	8-00 to 9-00
Meeting	9-30 to 12-30
Lunch	13-00 to 14-00
Meeting	14-30 to 16-30
Tea	16-30
Meeting	17-00 to 20-00
Dinner	20-00

There will be a group photo at 16-00 hrs. on the 2nd day and hence the post-lunch sitting will be only from 14-30 to 16-00.

Wednesday, 26th Dec. to Friday, 28th Dec. 1956

XXXIII ALL-INDIA MEDICAL CONFERENCE

PROVISIONAL PROGRAMME

26-12-1956 :

Coffee/Tea	6-00 to 6-30
Breakfast	8-00 to 9-00
Registration of Delegates ...	8-00 to 10-00
Guests, Visitors and Delegates occupy their seats ...	9-45 to 10-05
Presidential Procession ...	10-05 to 10-14
Inauguration commences ...	10-15
Vande Mataram	10-15 to 10-20
Welcome Address by Chairman, Reception Committee ...	10-20 to 10-35
Inaugural Address by H. E. the Governor	10-35 to 10-50
Installation of the President ...	10-50 to 10-55
Presidential Address	10-55 to 11-40
Reading of Messages	11-40 to 11-50
Inauguration of Exhibition ...	11-50 to 12-15
Vote of Thanks	12-15 to 12-20
Election of Subjects Committee ...	12-30 to 13-00
Lunch	13-00 to 14-00
Inauguration of Scientific Session (Conference Pandal)	14-05 to 14-45
President's Welcome Address	14-05 to 14-10
Inaugural Address	14-10 to 14-40
Vote of Thanks	14-40 to 14-45
Scientific Session I	14-45 to 16-45
Tea	16-45 to 17-30
Interval for Sightseeing	
Subjects Committee Meeting ...	17-30 to 20-00
Dinner	20-00 to 21-00
Entertainment	21-00 to 23-00

27-12-1956 :

Coffee/Tea	6-00 to 6-30
Breakfast	8-00 to 9-00
Scientific Session II*	9-00 to 11-00
Open Session (Conference Pandal)	11-00 to 13-00
Lunch	13-00 to 14-00
Interval for Sightseeing etc. ...	14-00 to 20-00
Tea	16-30 to 17-30
Dinner	20-00 to 21-00
Entertainment	21-00 to 23-00

28-12-1956 :

Coffee/Tea	6-00 to 6-30
Breakfast	8-00 to 9-00
Scientific Session III* ...	9-00 to 11-00
Interval	11-00 to 11-15
Scientific Session IV* ...	11-15 to 13-15
Lunch	13-15 to 14-15
Scientific Session V*	14-30 to 16-30
Group Photo and Tea ...	16-30 to 17-30
I. M. A. CENTRAL COUNCIL ORDINARY MEETING	17-30 to 19-30
Dinner	20-00 to 21-00
Closing of the Conference ...	21-00

* Scientific Sessions II, III, IV and V will be held in the College Auditorium.

N.B. Do you intend to visit Trivandrum on the occasion of the All-India Medical Conference? If so, have you sent Rs. 5/- to register your name? If not, please do so at once. (Details *vide* J.I.M.A. Supplement, p. 377, November 16 issue).

Are you aware that after reaching Madras, the speediest train from there is the Madras-Trivandrum Express which leaves Madras (Egmore) Railway Station at 8-30 P.M. at night and reaches Trivandrum at 6-55 P.M the following evening.

BRANCH NOTES

ALIGARH BRANCH—A meeting of doctors of the district was held under the auspices of the branch on 7-4-56 to meet Dr. K. M. Lal, Director of Medical and Health Services, U.P. Dr. D. P. Sharma, Civil Surgeon, Aligarh presided. The Ophthalmic expert of WHO spoke on the various activities of WHO. Dr. Lal praised the activities of WHO and spoke on the medical aspect of the 2nd Five Year Plan.

ALWAR BRANCH—A clinical meeting of the branch was held on 24. 10. 56 with Dr. C. S. Sharma in the chair. Dr. T. P. Jain reviewed the 4th Rajputana Medical Conference at Ajmer, Dr. A. N. Sharma spoke on "Glaucoma" and Dr. C. M. Sharma on "Dysuria".

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The annual report of the branch shows increase in membership, Clinical meetings were held every month and interesting subjects were discussed.

ANDHRA STATE BRANCH—The 16th meeting of the Working Committee of the Branch was held on 4-11-56 with Dr. P. Veeriah Chowdhury in the chair. The dates for the Andhra State Conference was confined. Dr. Ch. Suryanarayanamurti was declared to be elected the president. It was resolved to change the name of the State Branch to Andhra Pradesh Branch. It was resolved to fix up the headquarters of the Pradesh Branch at Hyderabad City and a Sub-Committee was appointed to effect the merger between the Andhra Pradesh Branch and the Telangana part of Hyderabad State Branch. The secretary was to be deputed to the International Tuberculosis Conference at Delhi. The Working Committee noted with regret that medical examiners for the Life Insurance Corporation of India were hand picked without any apparent policy or criterion. While commending the relief given by the Behar Blind Relief Mission, the committee advocated caution and made an offer of services from members of IMA.

BALLIA BRANCH—The annual meeting of the branch was held on 7. 10. 56. Dr. G. H. Singh presided. Office bearers for 1956-57 were elected with Dr. G. H. Singh as president, Dr. R. S. Gupta as hony. secretary and Dr. S. K. Mullick as joint secretary.

BANARAS BRANCH—The annual report of the branch for 1955-56 shows the total number of members during the peirod under review as 122 against 114 in the previous year. There were 10 ordinary and 2 extra ordinary meetings of the Council in the year. Eleven ordinary and 2 extraordinary general meetings were held. Scientific and clinical demonstrations were also arranged at the meetings. The foundation stone of the association building was laid on 5 November 1955 by the Chief Minister, U. P. The progressive popularity of the Journal Apka-Swasthya is evident.

BANGALORE BRANCH—The annual general body meeting of the branch was held on 23. 9. 56. Office bearers for 1956-57 were elected with Dr. D. A. Lakshmana Rao as president and Dr. K. S. Srinivasamurthy and Dr. M. S. Narayana Rao as hony. secretaries.

BELLARY BRANCH—A meeting of the branch was held on 10-11-56. Dr. S. R. Gorur presided. Dr. N. S. Viswanatha Iyer spoke on Infantile Cirrhosis of the Liver and Dr. V. Seena demonstrated a case of unresolved Pneumonia.

BIHAR SHARIFF BRANCH— An extra-ordinary meeting of the branch was held with Dr. R. Prosad Verma in the chair. The meeting condoled the death of Dr. Syed Azizul Hassan, an ex-president of the branch.

BOKARO BRANCH—The annual general meeting of the branch was held on 27-10-56 with Dr. P. R. Bhattacharya as president. Twelve members were present. The secretary's report and the accounts for 1955-56 were adopted. Office-bearers for 1956-57 were elected with Dr. P. R. Bhattacharji as president and Dr. A. B. Roy as hony. secretary.

BULANDSHAHR BRANCH—The annual report of the branch for the year 1955-56 shows that 3 ordinary meetings were held during the year and it was decided to hold meetings once every month in future. Office bearers for 1956-57 were elected with Dr. J. K. Dwivedi as president, Dr. H. N. Beri as hony. secretary and Dr. H. K. Sharma as joint secretary.

CALCUTTA BRANCH—The 1st meeting of the executive committee of the branch was held on 16. 11. 55 with Dr. B. P. Tribedi in the chair. Twentysix members were present. Twenty seven doctors were enlisted as members. It was decided to hold the monthly meeting of the executive committee on second Tuesday every month.

Representatives to the provincial council were elected. Special Committees and Sub-Committees were constituted. A new Sub-Committee "Membership Drive Sub-Committee" was formed.

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The 2nd meeting of the executive committee was held on 13. 12. 55. Twentyfive members were present. Seventeen new members were enlisted. The reports of the sub-committees were considered. A sub-committee was formed to consider the resolutions referred to the executive committee by the last annual general meeting. Referring to the circular of the Central Office, it was resolved that the building fund drive be made and appeals issued to members.

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The 3rd meeting of the committee was held on 10. 1. 56. Twenty five members were present. Eight new members were registered. The reports of the sub-committees were discussed. The meeting was adjourned till 17. 1. 56.

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The adjourned meeting of the committee was held on 17. 1. 56. Thirteen members were present. The recommendations of the Library Sub-Committee to appoint a part-time library assistant was accepted.

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An emergent meeting of the committee was held on 10. 2. 56 to consider the proposed merging of West Bengal with Bihar. It was decided to hold a special general meeting to consider the Bengal-Bihar merger proposal.

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The 4th ordinary monthly meeting of the executive committee was held on 14. 2. 56. Seventeen members were present. Nineteen new members were enlisted. A sub-committee was formed to arrange felicitation to Dr. A. D. Mukharji on his elevation to the position of Minister of Health. The house decided to hold the next meeting of the working committee, I. M. A. at Calcutta.

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The 5th ordinary meeting of the executive committee was held on 13. 3. 56. Twentyfive members were present. The letter of Dr. P. K. Chatterjee regarding Bengal-Bihar merger issue was discussed. The house deferred the matter to be discussed at a subsequent meeting to be called with a specific agenda on the subject. Twentyfour new members were enlisted. The reports of the sub-committees were considered.

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A special meeting of the executive committee was held on 20-3-56. Twentysix members were present. Regarding a statement on the Bengal-Bihar merger in

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the public press signed by a number of doctors the committee thought that as the matter did not concern the aims and objects of the associations, it was not necessary to pursue it further.

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The 6th ordinary meeting of the committee was held on 10. 4. 56. Thirty members were present. Dr. B. P. Tribedi presided. Ten new members were enlisted and 20 members resigned. The reports of the sub-committees were considered. The meeting was adjourned to 13 4. 56.

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The adjourned meeting of the committee was held on 13-4-56. Nineteen members were present. The reports of the sub-committees were discussed. The meeting was adjourned to 23-4-56.

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The adjourned meeting was held on 23. 4. 56. Eleven members were present. The house considered the letter from the Medical College Student's Union regarding supply of injections and free medicines to poor outdoor patients and decided that students should not be encouraged in giving injections to patients as it might lead to undesirable results. The reports of sub-committees were considered. The meeting was adjourned to 25. 4. 56.

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The adjourned meeting as held on 25. 4. 56. Seven members were present. The reports of the sub-committees were considered.

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The 7th ordinary meeting of the executive committee was held on 8-5-56. Twenty members were present. Fortyfour new members were enlisted. Reports of the sub-committees were considered. Regarding Messrs. East India Pharmacentical Works Ltd.'s offer of a fellowship for research on "Influence of Amoebicidal drugs on some Gastro-intestinal Diseases, the hony. secretary was requested to take necessary steps.

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The 8th ordinary meeting of the executive committee was held on 12. 6. 56. Twentyseven members were present. Regarding Fellowship for research work offered by Messrs. East India Pharmaceutical Works Ltd. it was decided to refer the matter to the Scientific Sub-Committee. Thirteen new members were enlisted, one member resigned. The reports of sub-committees were considered. The meeting was adjourned.

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The adjourned meeting was held on 19. 6. 56. Sixteen members were present. The amendment of Bye-laws 42 and 48 regarding composition of Journal Committee was approved.

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The ninth ordinary meeting of the executive committee was held on 10. 7. 56. Twentyfour members were present. Eight new members were enlisted. The reports of the sub-committees were considered. Regarding East India Pharmacentical Works Ltd. Fellowships, it was decided to request Principals of teaching institutions to forward names of the investigators for the research project. The Committee was not in favour of the resolution of discontinuing TA to Working Committee and Central Council members. In the opinion of the house it was not unethical for a physician who was not a radiologist to deliver a lecture on a radiological subject. A sub-committee was formed to draft resolutions for the next meeting of the Central Council and the All India Medical Conference.

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An emergent meeting of the committee was held on 25. 7. 56. Twentyfour members were present. The death of Mr. Paul in the N. R. S. Hospital was fully discussed and the opinion of the house given.

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The 10th meeting of the committee was held on 14. 8. 56. Twentyone members were present. Eleven new members were enlisted. Six resignations from members were accepted. The house considered the reports of the sub-committees. Arrangements were made regarding the ensuing election. The house adjourned till 21. 8. 56.

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The adjourned meeting of the committee was held on 21. 8. 56. Fourteen members were present. Dr. C. R. Banerjee's letter regarding appointment of medical men in more than one hospital were discussed. The house protested against the proposed IMC Bill.

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The 11th meeting of the committee was held on 11. 9. 56 Twentyseven members were present. Thirteen new members were admitted. Office-bearers of the Bengal Provincial Branch were elected. 24th November 1956 was fixed as the date for holding the annual general meeting of the branch.

CHINGLEPUT BRANCH— A general body meeting of the branch was held on 27. 10. 56 with Dr. K. R. Ganesa Mudaliar in the chair. Office-bearers for 1956-57 were elected with Dr. K. R. Ganesa Mudaliar as president and Dr. A. Sundararaja Rao as secretary. Dr. P. Kutumbiah of Vellore gave a talk on Typhoid,—diagnosis, treatment and prevention of the disease.

CHITALDRUG BRANCH—A meeting of the branch was held on 11. 10. 56 with Dr. D. Shamanna in the chair. Dr. Shamanna read a number of case reports and Dr. M. Appajappa showed some interesting radiographs.

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A meeting was held on 18. 10. 56 to meet Dr. G. V. Joshi, one of the vice-presidents of the IMA. Dr. Shamanna welcomed him. Dr. Joshi requested everyone to improve the membership of the branch.

COCHIN BRANCH—A meeting was held on 27. 3. 56. Dr. S. Vasava Mennon addressed the members on "Congestive Heart Failure" and Dr. P. K. Raghava Warrier on "Problems I have Faced."

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A joint meeting was held at Alleppey at the invitation of the Alleppey Local branch on 24. 4. 56. Dr. K. Y. Roy of the Alleppey Local branch demonstrated Clinical cases on "Congenital Pyloric Stenosis" explaining the details connected with Ramstead operation. He also demonstrated certain other cases also. Dr. V. B. Mohammed of the Cochin Local Branch addressed the members on "The Recent Advances in Surgery".

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A meeting was held on 17. 7. 56. Dr. K. Y. Roy, Surgeon-in-Charge of Sri Narayana Medical Mission General Hospital, Shertallay addressed the members on "Recent Advances in Anaesthesia".

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A meeting of the Cochin Local Branch was held on 31. 7. 56. Surgeon Lt. Commd. 'De. Natto' addressed the members on "Psychology of Suicide".

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A meeting was held on 16. .8 56. Dr. T. Seshachalam (Retd.) Durbar Surgeon and Director of Government Hospitals, Mysore and at present Surgeon, St. Martha's Hospital, Bangalore, addressed the members on "Some Aspects of Appendix".

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A special meeting was held on 19-8-56. Dr. C. P. Viswanath Menon, Hony. Surgeon, Government General

Hospital, Madras, addressed the members on "Acute Abdomen."

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A meeting of the Local Branch was held on 4-9-56. Dr. C. M. Joseph who had recently returned from U.S.A. after special training there in Internal Medicine for two years, as selected by the Indian Medical Association for Residency post in Berlington Hospital, Mount Holly and Womens Hospital, Baltimore Maryland, addressed the members on "Some Aspects on the Treatment of Coronary Artery Diseases".

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The Annual Conference of the Local Branch was held on 18-9-56. Dr. M. J. Philip, D.M.O. addressed the members on "Transplantation of Cornea." Dr. T. Gopinatha Menon addressed the members on "Conjunctivitis." Dr. Mrs. Parukutty Amma K., addressed the members on "Persistent Occipito Posterior" and other varieties of presentations. Dr. S. Madhusuthanan (Civil Surgeon) District Hospital, Ernakulam, addressed the members on 'Acute Appendix'. Under special invitation many of the members of the Alleppey Branch of I.M.A. also participated in the above conference. Dr. S. S. Rao was elected the president, Dr. N. Vasudevan, hony. secretary and Dr. T. Gopinathan, joint secretary for the year 1956-57.

COIMBATORE BRANCH—A meeting of the branch was held on 23-9-56. Dr. T. V. Shivanandam presided. Sixty members were present. Dr. C. Raghavachari, Prof. of Surgery, Stanley Medical College, Madras spoke on "Acute Abdomen."

DALTONGANJ BRANCH—A general meeting of the branch was held on 11-9-56. Sixteen members were present. The meeting discussed arrangements for the State Council meetings.

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The State Council meeting of Bihar State Branch was held at Barwadih under Daltonganj Branch on 30-9-56. The members of the local branch were invited to attend the meeting.

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A district medical conference was held on 30-9-56. Office bearers for 1956-57 were elected with Dr. R. Sinha as president and Dr. A .D. Chakravarti as secretary. Dr. S. N. Sinha of Ranchi spoke on "Vaccination Problem", Dr. A. K. Guha on the "Pathological help in Medical Practice" and Dr. S. M. Ghoshal on "Syphilis of the Nervous System".

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On 19-10-56, a farewell tea party was given in honour of Dr. (Miss) R. Bakla on her transfer. Dr. (Mrs.) B. Sen who took charge from Dr. Bakla was also welcomed.

DEHRA DUN BRANCH—The annual meeting of the branch was held on 22-10-56. Office-bearers for 1956-57 were elected with Dr. S. D. Chandra as president, Dr. Jogmohan Singh as hony. secretary and Dr. B. R. Sharma as hony. assist. secretary. The annual report of the branch for 1955-56 shows that 10 members of the executive committee were held during the year. Thirteen meetings, 1 meeting to fix up fees for the membership to the Reception Committee for the XXI Conference, the 1st meeting of the Reception Committee and 10 Clinical meetings were held.

DEORIA BRANCH—A general meeting of the branch was held on 7-10-56 with Dr. A. Ahmad in the chair. Thirteen members were present. Dr. S. C. Acharya read a paper on "Rheumatic Fever and Gout". It was decided to donate Rs. 101/- to the funds of the Association for flood relief.

DEOLALI BRANCH—The annual meeting of the branch was held on 23-9-56 with Dr. B. J. Pandit in the chair. Office bearers were elected with Dr. B. J. Pandit as president and Dr. J. L. G. Pinto as secretary. The number of members on the roll was 12.

DHANBAD BRANCH—The annual general meeting of the branch was held on 30-9-56. Office bearers were elected with Dr. (Major) H. C. Mallik as president, Dr. L. C. Mittra as hony. secretary, Dr. B. N. Hazra, Dr. A. M. Roy, Dr. H. N. Mukherji and Dr. B. Gupta as joint secretaries. The annual report and the statement of accounts were adopted. It was resolved to change the name of the branch to Dhanbad Branch in view of the conversion of the subdivision into a district.

FAIZABAD BRANCH—A "zonal conference" of the branch was held on 29-9-56 under the presidentship of Dr. S. S. Misra. Sixtyseven delegates from Lucknow, Bara Banki, Sultanpur, Azamgarh, Gonda, Basti and Faizabad attended. The president in his speech referred to the results of the First Five Year Plan so far health was concerned and the programme of the 2nd Five Year Plan. He said "The curative, the preventive and the environmental hygiene are the three facets of medical aid in the planning of health." He could not support the leaning of the men of abilities towards the clinical side of medicine only.

The annual meeting of the branch was held on 29-9-56. Dr. S. S. Misra presided. Secretaries read their reports. In all 12 meetings, 1 special meeting and 11 meetings of Scientific section were held. There was some improvement in membership. Office bearers for 1956-57 were elected with Dr. S. S. Misra as president and Dr. Yagdatta Kapur as hony. secretary.

FEROZEPORE BRANCH—A meeting of the branch was held on 6-11-56 with Dr. Manmohan Singh, Civil Surgeon in the chair. The annual report and the audited accounts for 1955-56 were adopted. Office bearers for 1956-57 were elected with Dr. S. C. Vinayak as president, Dr. Reshi Ram as secretary, Dr. C. P. Sethi and Dr. C. P. Khanna as joint secretaries.

GARHBETA BRANCH—The annual general meeting of the branch was held on 30-9-56. Dr. I. B. Ghose was in the chair. Twenty members were present. It was resolved that Health Week be observed during the Pujahs, drug rules be strictly followed and the Government be requested to gainfully employ the unemployed medical personnel. Membership, as shown by the Hony. Secretary, increased from 32 of last year to 56. The activity of the branch increased and its noted achievement was public contact and health education through sociomedical conference.

GHATAL BRANCH—The socio medical session of the Ghatal Rural Medical Conference held on 7-10-56 discussed the tragic murder of Dr. J. N. Roy and asked the Government to take necessary steps for the detection of the culprits.

GHAZIPUR BRANCH—The annual meeting of the branch was held on 28-10-56 with Dr. M. Z. Ebad in the chair. Eleven doctors were present. The secretary's report for 1955-56 was read. Ten meetings were held 4 of which were clinical. Office bearers were elected with Dr. Kartar Singh as president, Dr. J. Chowdhuri as hony. secretary, Dr. M. Z. Ebad and Dr. K. S. Misra as hony. joint secretaries.

GHUGUDANGA BRANCH—The annual meetings of the branch was held on 28-10-56 with Dr. S. S. Sarkar in the chair. Thirteen members were present. The annual report and the audited accounts for 1955-56 were adopted. Office-bearers for 1956-57 were elected with Dr. S. S. Sarkar as president, Dr. S. C. Sen Gupta as hony. secretary and Dr. T. N. Chowdhury as hony. joint secretary for the year 1956-57. The annual report of

the branch for 1955-56 shows that membership declined. Three ordinary meetings and one general meeting was held during the year.

GORAKHPUR BRANCH—A special meeting of the branch was held on 8-10-56 to meet Dr. K. M. Lal, Director, Medical and Health Services, U.P. Dr. K. N. Srivastava presided. Forty-eight members were present. The president in welcoming the guest, referred to some of the grievances. The Director promised to do his best in the matter.

GUNTUR BRANCH—The members of the branch viewed with deep concern the discrimination shown by the authorities of the recently constituted Life Insurance Corporation of India in selecting Medical Examiners for the Corporation in the district.

GURDASPUR BRANCH—A meeting of the branch was held on 27-10-56. Office bearers for 1956-57 were elected with Dr. Santosh Singh as president, Dr. B. S. Sachdev as secretary and Dr. T. N. Kaushal as joint secretary.

HARDOI BRANCH—The annual report of the branch for 1955-56 shows that during the year 8 scientific and 10 ordinary meetings were held and papers were read and scientific discussions were held. Office bearers for 1956-57 were elected with Dr. S. N. L. Asthana as president, Dr. P. D. Saxena as hony. secretary and Dr. K. D. Pandia as hony. joint secretary.

HOSIARPUR BRANCH—The annual election of the branch was held on 20-10-56. Dr. H. D. Verma presided. Office bearers for 1956-57 were elected with Dr. Om Prakash Ohri as president and Dr. Shiv Charan Dass Sud as hony. secretary.

HYDERABAD CITY BRANCH—A general body meeting of the branch was held on 21-10-56 with Dr. K. Rangacharyulu in the chair. Office bearers for 1956-57 were elected with Dr. S. Venkateshwar Rao as President and Dr. Yousuf Mirza as secretary.

INDORE BRANCH—The annual report of the branch for 1955-56 showed that membership increased during the year. Twelve Clinical meetings, 8 special meetings and 10 sub-committee meetings were held during the year and clinical lectures were arranged. It is pleasing to note that the branch is running 2 Free Dispensaries one at Manglia and another at Simrol.

JABALPUR BRANCH—The annual general meeting of the branch was held on 30-9-56. Dr. R. N. Chatterjee gave a review of the work done by the branch in the past year. Office bearers for 1956-57 were elected with Dr. M. G. Harshey as president, Dr. R. N. Chatterjee as hony. secretary and Dr. Yunus Rahim as hony. joint secretary.

JAGATDAL BRANCH—The annual report of the branch for the year 1955-56 shows no improvement in membership position. Two executive committee meetings and 8 monthly meetings of which one was a clinical meeting, were held during the year. Dr. A. K. Basu was elected the president, Dr. P. N. Ghose, hony. general secretary and Drs. P. K. Nag and P. Sinha, joint secretaries of the branch for 1956-57.

JAGATDAL BRANCH—A meeteing of the branch was held on 6-11-56 with Dr. A. K. Basu in the chair. Seventeen members were present. The members condoled the death of Mrs. Moitra, wife of Dr. J. N. Moitra, a member of the branch.

JALGAON BRANCH—At the annual meeting of the branch held on 21-10-56. Dr. K. B. Patil was elected as the president, Dr. K. A. Doshi as hony. general secretary and Dr. S. D. Athawale as hony. joint secretary.

JAMTARA BRANCH—A branch under the name of Jamtara Branch, IMA was opened on 1-10-56 with 7 members. Dr. G. S. P. Sinha was elected president, P. R. Mukherjee, secretary and Dr. S. K. Gon, joint secretary. The members decided to meet every month.

KALYANI BRANCH—A meeting of the branch was held on 26-8-56. Dr. N. K. Apte of Bombay spoke on "Diseases of the Ear Nose Throat and the General Practitioners."

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A meeting of the branch was held on 23-9-56. Dr. M. B. Deshmuk of T. B. Hospital, Shivadi, Bombay spoke on "Tuberculosis—a problem."

KANDI BRANCH—The annual general meeting of the branch was held on 30-9-56. Dr. R. G. Das was elected president and major S. Ghosh the secretary for 1956-57. The annual report shows that during the year 6 meetings, 1 Bejoya Sanmilani and one picnic party were held. There is a slight fall in membership. The members of the branch had been strenuously fighting the recent havoc caused by the flood.

KANPUR BRANCH—A clinical meeting of the branch was held on 10-8-56 with Dr. R. Prasad in the chair, Dr. D. P. Gupta showed the following cases: "(1) Chyluria, (2) Urethral Calculus, (3) Cystic Hygroma". Dr. P. P. Agarwal showed a case of "Cancer of Stomach." Dr. B. K. Bharadwaj showed a case of "Aortic lesion." Dr. B. K. Kapoor, presented a case of "Monckeberg's Medical Sclerosis."

KHANDWA BRANCH—The annual meeting of the branch was held on 25-10-56 and office-bearers were elected with Dr. R. S. Verma as president and Dr. D. D. Gokhale as secretary.

KHARAGPUR BRANCH—The adjourned general meeting of the branch was held on 1-10-56 with Dr. H. S. Chaudhury in the chair. The annual report and the audited accounts were passed by the house. Twenty members attended the meeting. The following office-bearers were elected for the session 1956-57. President: Dr. H. N. Chakraborty; Hony. General Secretary: Dr. A. M. Basu; Jt. Secretary: Dr. B. N. Sen.

KISTNA DISTRICT BRANCH—The annual conference of the branch was held on 29-9-56. Dr. R. Mahadevan, Prof. of Surgery of Madras Medical College presided. The annual report and balance sheet were approved. Office bearers were elected with Dr. J. W. Lemuel as president. Dr. D. Subba Rao as secretary and Dr. M. Subba Rao as joint secretary. Dr. R. Mahadevan spoke on "Surgical Emergencies and General Practitioners". Dr. Mrs. R. Satyabhama Reddi spoke on Uterine Inertia, Dr. T. T. Subrahmanyeswara Rao spoke on Diagnosis in General Practice. Dr. M. Seshacharyudyu demonstrated "Differential Sphygmomanometer".

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A meeting of the branch was held on 29-7-56. Dr. J. W. Lemuel was elected president of the branch in place of Dr. N. Govindarajulu transferred. A symposium of "Amoebiasis" was held.

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A meeting was held on 9-9-56. Dr. P. Laxmana Rao of Guntur Medical College spoke on "Congestive Heart Failure".

KOLAGHAT BRANCH—A meeting of the branch was held on 18-12-55 with Dr. A. K. Chatterjee in the chair. Different organisational problems were discussed.

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A meeting of the branch was held on 12-2-56. The anti-malaria control measures adopted by the West Bengal Government were appreciated. The West Bengal and Bihar merger was disapproved.

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A meeting of the branch was held on 8-4-56. The proposed Taluk Sub-divisional Rural Medical Conference on 17-6-56 were welcomed.

KOLHAPUR BRANCH—A meeting of the general body was held on 28-9-56. Office bearers for 1956-57 were elected with Dr. P. B. Bhadre as president, Dr. S. D. Kodolikar as hony. secretary and Dr. A. N. Parendekar as joint secretary. The annual report of the branch for 1955-56 shows that during the year 5 new members were enrolled, the branch was registered under the Public Trust Act and 4 clinical lectures were organised.

KOTALPUR BRANCH—A general meeting of the branch was held on 1-9-56. Twentythree members were present. The Government of West Bengal was requested to start immediately health centres in every union with free medical aid to the rural people.

LUCKNOW BRANCH—The annual report of the branch for 1955-56 shows an increase of membership by 11. The executive Committee met on 9 occasions and 8 general meetings were held. Elaborate arrangements for Silver Jubilee Celebrations started during the year. The financial position is quite satisfactory.

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The annual general meeting of the branch was held on 21-10-56. Office bearers were elected with Dr. H. N. Shivapuri as president, Dr. R. N. Gupta as hony. secretary, Dr. A. K. Tandon as joint secretary and Dr. Tarachand as joint secretary, Scientific section.

LUDHIANA BRANCH—The annual report of the branch for 1955-56 shows that 8 meetings were held. Four were scientific meetings, 1 scientific cum business and 2 executive meetings. Membership increased from 48 to 68. The Health Sub-Committee took keen interest in the local health and sanitation problems. Dr. K. L. Pathak was elected the president, Dr. S. C. Thaper, hony. Secretary and Dr. B. Verma as hony. joint secretary of the branch for the year 1956-57.

MADRAS STATE BRANCH—A meeting of the Council of the State Branch was held on 18-8-56. Thirty-one members were present. It was decided to hold fresh election for President and Vice-President of the State branch. The idea of constituting the Working Committee for the State branch was dropped. The statement of accounts for May, June and July 1956 was adopted. A sub-committee was constituted to examine the question of a rate of payment to medical examiners for medical examination of proponents for insurance. The activities of the constitution called 'CORRESKOOL' of Bombay professing to impart postal tution in modern medicine were discussed. It was announced that the Government was pleased to exempt medical men from taking out licenses for X-ray Plant installations at their dispensaries. The Rural Medical Practitioners' Benefit Scheme of Dr. S. B. Anklesaria was considered and as the scheme was applicable to all members of the Association, it was recommended to delete the word "Rural". The council was not in favour of discontinuing payment of T.A. to members of Working Committee and Central Council. According to the Council the President, I.M.A., should be a member of the Journal Committee, IMA. The council expressed its views against registered practitioners teaching clinical or preclinical subjects in institutions of indigenous systems of medicine. According to the Council, the observance of Health Week during October throughout the Union was desirable. Regarding the amendment of the Indian Medical Council Act, a second deputation of IMA was suggested to wait upon the Union Health Minister. The council accepted the resignation of Dr. S. Sankaran as hony. secretary of the Madras State Branch and appointed the hony. Treasurer to take over the charge till the next election.

MADURA BRANCH—A meeting of the branch was held on 27-10-56 with Major G. A. Naidu in the chair. Dr. A. Asirvatham of Government Erskine Hospital spoke on Minor Surgical Problems.

MALABAR BRANCH—The annual general body meeting of the branch was held on 23-9-56. This being the 25th year of the branch, the Silver Jubilee was celebrated the same day. Dr. A. Vanugopal of Madras General Hospital, spoke on "Surgery of the Prostate and Bladder"; Dr. C. R. R. Pillay of Stanley Hospital, Madras, on "Coronary Thrombosis—a review of 50 cases"; Dr. (Miss) Calaco of Kasturba Medical College, Mangalore on "Hypertension in Pregnancy". Office bearers were elected with Dr. C. V. Narayana Iyer as president and Dr. V. J. Nedungadi as hony secretary.

MANDAPETA BRANCH—A meeting of the branch was held on 25-8-56. Dr. K. Ramanajeerao gave a talk on "Mass Therapy in Filariasis".

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A meeting was held on 17-10-56. Dr. Narasimharao and Dr. B. Subbarao were elected president and secretary respectively. Dr. Sankararao showed some X-ray films on "Eosinophilic Lungs in children."

MIDNAPORE BRANCH—The annual general meeting of the branch was held on 30-9-56. Office bearers for 1956-57 were elected with Dr. U. N. Sen Gupta as president, Dr. J. C. Giri as hony. secretary and Dr. A. K. Pal, Dr. A. B. Sen and Dr. A. B. Mandal as joint secretaries. The annual report of the branch for 1955-56 shows two public meetings were held under the auspices of the branch, also 19 ordinary meetings besides 2 others to express condolence. One clinical meeting was held. Fifteen new members were enrolled in the year.

MONGHYR BRANCH—A meeting was held on 27-11-55 under presidentship of Dr. D. N. Roy. 26 members attended. Dr. B. G. Bose read an article on "Planning of Treatment of Pulmonary Tuberculosis".

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A meeting was held on 22-1-56 under the presidentship of Dr. S. N. Sen, 27 members attended. It was decided to observed Health Week and to pay a sum of Rs. 201/- to the building fund at Patna.

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A meeting was held on 29-2-56 under presidentship of Dr. B. B. Bose. 13 members attended. A sub-committee for Health Week was formed.

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A meeting was held on 16-3-56 under the presidentship of Dr. K. P. Mitra. 26 members attended. Association anniversary was observed befittingly. Dr. K. P. Mitra read an article on "Care of Infants".

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A meeting was held on 4-5-56 under the presidentship of Dr. L. C. Prasad. 34 members attended. Routine association business was transacted.

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A meeting was held on 9-9-56 under the presidentship of Dr. S. N. Sen (Jamalpur). 20 members attended. Election of President and Vice-Presidents for both Central and State for the year 1956-57 was made.

* * * * *

An annual meeting was held on 6-10-56 under the presidentship of Dr. D. N. Roy. 32 members attended. Election of office bearers of the local branch was held. Dr. D. K. Dutta read an article on "Coma".

MORVI BRANCH—A meeting of the branch was held on 30-9-56. Dr. D. C. Oza presided. Office bearers for 1956-57 were elected with Dr. J. G. Parekh, Dr. S. L. Munshi as hony. secretary and Dr. M. D. Dafatry as hony joint secretary.

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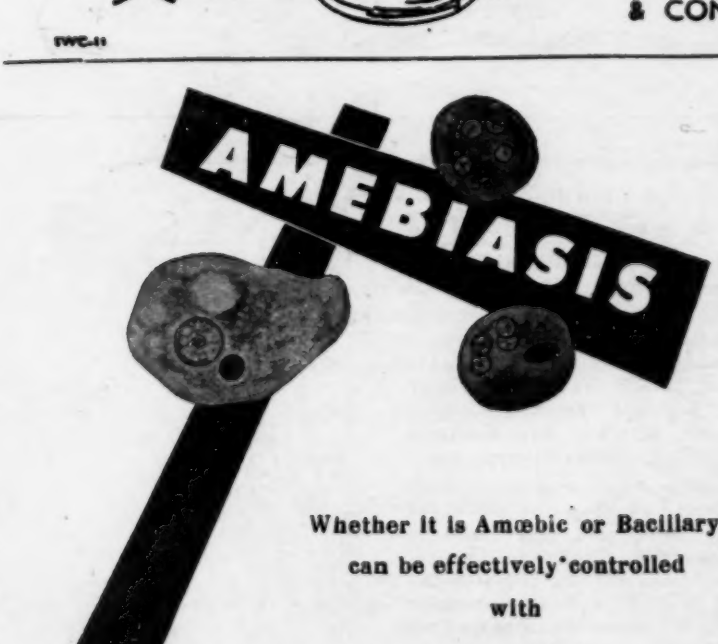

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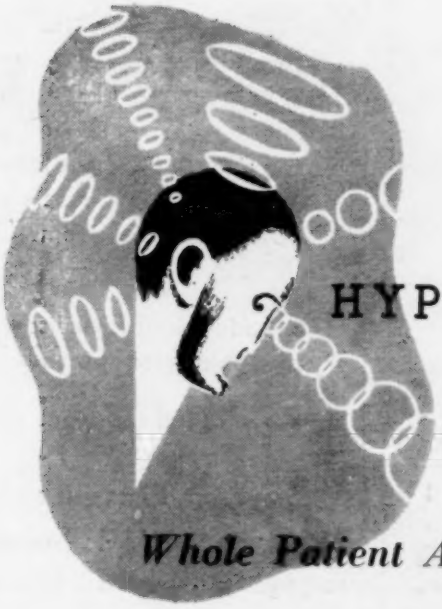

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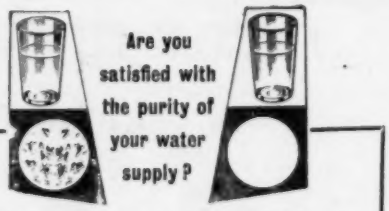

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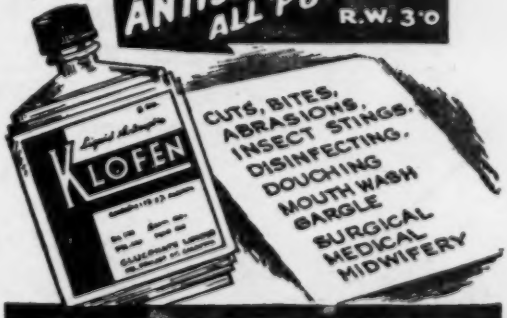

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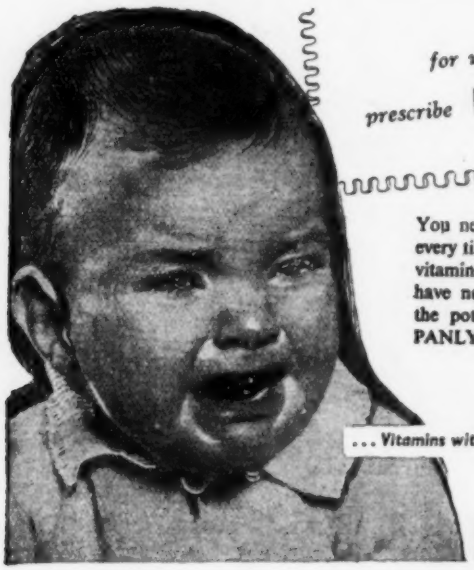

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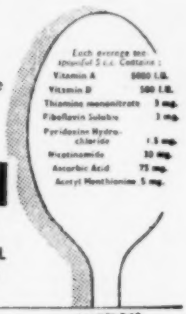
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